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ABSTRACT

This report describes the evaluation activities associated with the development and production of POWERHOUSE, a motivational television series designed to help 8- to 12-year-old children take active, personal responsibility for their own health and well being. The evaluation of POWERHOUSE was divided into two major sections: the Writers' Notebook and original formative research. The Notebook consisted of a literature review and analysis. The first task accomplished by the original research was to establish the health knowledge information base that target age children would bring to their viewing of the series. Focus-interviews with children and follow-up questionnaires, using a larger sample, provided information on knowledge of drugs, sex, body systems, and general health and nutrition. The next evaluation procedure was to assess the reactions of children, teachers, and youth leaders to narrative versions of three different scripts. At the same time that the script treatments were tested, pictures and brief character descriptions of potential series regulars were also evaluated. In November of 1980, a market test of the pilot series was conducted in a representative demographic market, Toledo, Ohio. An 85-item bibliography is attached. (Author/LLS)

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A HISTORY

OF

THE POWERHOUSE EVALUATION

Prepared by:

Audience Profile Services, Inc.
2000 P Street, NW #308
Washington DC 20036

For:

The Educational Film Center
5401 Port Royal Road
Springfield, VA 22151

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1981

INTRODUCTION

In October of 1979, the Educational Film Center (EFC) was awarded the POWERHOUSE project by the United States Office of Education, now Department of Education. Phase I of the two phase project entailed the development, production and evaluation of a series pilot program. This report covers the evaluation activities associated with Phase I. Audience Profile Services, Inc. (APS) provided these services to EFC as a sub-contractor.

POWERHOUSE has been designed as a motivational television series to help eight to twelve year old children take active, personal responsibility for their own health and well being. The 15-program series will provide more than health and fitness information; it will encourage a positive attitude in viewers that will help them reach their full mental and physical potential -- help them become POWERHOUSES.

Nearly a year of research and evaluation took place before production of the series pilot program was completed. Early in the project, EFC decided on an action-adventure (with a health message) format as the basis for the series. This adventure story will have a continuing cast of characters -- the POWERHOUSE kids, and a continuing focal point, an urban community center called POWERHOUSE. Interspersed throughout the story will be commercial-type inserts called POWERHOUSE Program Inserts (PPIs) carrying health information and motivational messages.

During the pilot production stage, it was necessary to fine tune the developing program by obtaining specific information on the interests and sensibilities of eight to twelve year olds, both from the literature and directly from the target audience. The evaluation activities reported here provided EFC with a comprehensive assessment of the reaction of eight to twelve year olds of various ethnic, geographic and economic backgrounds to pre-production elements of the POWERHOUSE series and to a rough cut of the pilot program.

I am grateful to the many people who helped design and implement the POWERHOUSE Evaluation Plan. Among them, the POWERHOUSE Executive Committee and EFC staff including Ira Kluger man, Executive Producer, Dr. Charles Flatter, Chief Content Consultant, Ruth Pollak, Head Writer, Noel Izon and Robert Crowther of Contact Media, Inc., Judith Angerman, Project Administrator, Anne Hinkle, Production Assistant, and Nicole Alleyne, Administrative Aide.

To APS staff Katherine Hammond, Frances A. Bell, Nancy M. Neubert (Charleston, West Virginia), Dorothy R. Middleton (Oakland, California), Maxene Balkema (Romney, Indiana), and Ann Redmon (Seattle, Washington), I extend my deepest gratitude for a job well done. Without their help this project would have been impossible to complete.

I also wish to thank Tom Williams of the Agency for Instructional Television for his prompt and efficient assistance during the implementation of non-broadcast materials evaluation.

Last but not least my heartfelt thanks to Dorothy Kilgore, EFC's Chief Financial Officer, for her patience and assistance over the years and to Dr. Jack Hunter, EFC's General Manager, for his support and confidence in me and my company.

Monica Dignam
President
Audience Profile Services, Inc.
November, 1980

TABLE OF CONTENTS

	page
THE POWERHOUSE WRITERS' NOTEBOOK	
INTRODUCTION TO THE WRITERS' NOTEBOOK	1
A PROFILE OF THE TARGET AGE CHILD	3
The Target Age Child As a Consumer of Television	3
The Target Age Child As a Learner	8
The Target Age Child As Consumer	12
RESEARCH FINDINGS FROM THE ADVERTISING LITERATURE	15
The Advertisers Approach	16
Design of Appeal	20
Selection of Format	27
The Role of the Endorser	32
Use of Music	37
Use of Color	38
The Program Environment	39
Repetition	40
Position	41
Length	42
SUGGESTIONS FOR POWERHOUSE	44
ORIGINAL RESEARCH CONDUCTED FOR POWERHOUSE	
INTRODUCTION TO POWERHOUSE ORIGINAL RESEARCH	50
FOCUS INTERVIEWS AND FOLLOW-UP FOCUS QUESTIONNAIRES	51
Method	51
Highlights From the Focus Interviews	53
Demographics	53
Family Background	53
Membership in Youth Groups	53
Feelings and Aspirations	54
Knowledge of Drugs	54
Amount of Sex Information	55
Participation In Sports	58
Illness	58
Eating Habits	59
Highlights from Follow-Up Questioning	59
Demographics	59
Family Background	60
Membership in Youth Groups	60
Feelings and Aspirations	61
Knowledge of Drugs	62
Amount of Sex Information	63
Sports and Recreation	65
Health, Fitness and Illness	65
Eating Habits	66
Media Preferences	66

Table of Contents, continued

TREATMENT EVALUATION 68
Method 68
Site and Sample Selection 68
Design of Instruments 69
Site Management 69
Results 70
Demographics 70
Ratings 70
Theme Evaluation 71
Character Evaluation 74
Adult Analysis of Script Treatments 75
STORYBOARD & CHARACTER EVALUATION 78
Storyboard Evaluation 78
Method 79
Design of Instruments 79
Evaluation Management 80
Results 80
Demographics 80
Ratings 81
Theme Evaluation 81
Commitment to Viewing 84
Ideas For Future Segments 84
Adult Analysis 86
Character Evaluation 89
Method 89
Results 89
Demographics 89
Ratings 89
Adult Analysis 90
Curriculum Review Board Review of PPIs 90
Method 90
Results 91
PRINT MATERIALS EVALUATION 93
Method 94
Results 95
Demographics 95
Ratings 95
Completion Rate 96
PARENTS AND YOUTH LEADERS ON SEX EDUCATION 98
Method 98
Results 98
NATIONAL FIELD TEST 102
Method 102
Site Selection 102
Sample Selection 102
Instrument Design 104
Evaluation Management 107
Results Drama 108
Demographics 108
Ratings 108
Series Theme 109

Table of Contents, continued

Characters	110
Learnings	112
Attention Measure	116
Ideas for future programs	117
Results PPIs	117
Demographics	117
Ratings	118
Recall	120
Message Identification	121
Researchers Group Report	122
Focus Interviews	123
MARKET TEST IN TOLEDO, OHIO	125
Method	125
Site Selection	125
Sample Selection	126
Survey	126
Schools	126
Instrument Design	127
Survey	127
Schools	127
Evaluation Management	127
Results	128
Survey	128
Demographics	128
Recall of Outreach Activities	128
Viewership	131
Survey	131
Schools	133
Program Content	134
Survey	134
Schools	134
Conclusions	137
CAPTIONED EVALUATION FOR THE HEARING IMPAIRED	139
Method	139
Instrument Design	139
Evaluation Management	139
Results	139
SUMMARY	142
BIBLIOGRAPHY	150

THE POWERHOUSE

WRITERS' NOTEBOOK

INTRODUCTION TO THE WRITERS' NOTEBOOK

One of the first research tasks was a major literature review of persuasive techniques used in creating commercial messages directed toward the 8-12 year old audience. The result of the literature review is the POWERHOUSE Writers' Notebook, completed in December of 1979. This review contains information on TV viewing habits, learning styles, and consumer preferences of children in the target age range. It also details the ways in which the persuasive and attention-getting powers of commercials are maximized. This information was vital in producing effective PPIs. The Notebook was made available to the producers and to prospective writers of the pilot, and the information it contained was discussed in two Writers' Conferences held on the weekends of January 26 and February 2, 1980.

The Notebook is a comprehensive reference document in three sections as follows:

Section I: A Profile of the Target Age Child

Section II: Research Findings from the Advertising Literature

Section III: Suggestions for POWERHOUSE

The first section of the Notebook describes the 8-12 year old child as television viewer, learner and consumer. This background information on POWERHOUSE's intended audience provided a useful starting point for the series' writers, enabling them to direct their efforts toward the knowledge base and interests of

the target age child.

Section II addresses advertising issues relevant to POWERHOUSE, including the design of appeal, selection of format, the role of the endorser, and the context in which the advertising segment is placed. This section was particularly important in the production of the program inserts.

The third section synthesizes sections I and II in the form of suggestions for POWERHOUSE. It is followed by an appendix providing a developmental overview of the target age child, television preferences as reported in ratings, a brief description of some locally produced programming, and a comprehensive bibliography.

The Notebook was designed specifically as a guide for the POWERHOUSE writers and producers, but its potential for use extends to other situations in which knowledge of the interests of eight to twelve year olds, and an understanding of television advertising techniques as applied to children are needed.

SECTION I

A PROFILE OF THE TARGET AGE CHILD

1. The Target Age Child As a Consumer Of Television

With the help of the established ratings services and original research conducted for other products, we have a fairly good idea of what children watch.

Cartoons are big; of the top ten syndicated shows, seven are animated. However, a recent Arbitron Syndicated Program Analysis indicated that the ratings of some of the more established cartoons have dropped a little, especially among older children. Situation comedy/family shows, along with cartoons, seem to make up the bulk of viewing choices of the target age child when watching non-prime-time programming.

The November 1979 Nielsen Sweep of primetime programs also showed a strong interest in cartoons. Three cartoon specials were among the top ten for the 6-11 age group. The often animated World of Disney was also among the top ten. Other favorites were action/adventure and comedy offerings such as Dukes of Hazzard, Little House on the Prairie, Mork and Mindy and Buck Rogers in the 25th Century.

In addition to the information provided by Nielsen and Arbitron, CTW recently surveyed viewing interests among 8 to 12 year olds in preparation for production of the science series, 3.2.1. Contact. Children were asked to indicate their interest in watching shows from a selected list of twenty. Action and comedy were king. Charlie's Angels, Happy Days and the Six Million Dollar Man headed the list. Science and information shows did not do

well. An impressive overall result was how similar the reports were, regardless of regional, ethnic, sex or grade differences.

Science related shows (Wild Kingdom, Animals, Animals, Animals, In Search Of, Jacques Cousteau, and Nova) did have somewhat heavier viewing reported among boys than girls. Good Times was ranked higher by Black respondents than by other ethnic groups. The lowest agreement in program choices between ethnic groups was between Latinos and Blacks.

When the children were asked to name their one favorite program - with no restrictive list this time - one hundred sixty-six shows were nominated. However, only seven shows accounted for 50% of the nominations. These seven shows were: Charlie's Angels, Happy Days, Incredible Hulk, Hardy Boys, Baby, I'm Back, Good Times, and Three's Company. These shows fall into two categories, comedy and mystery/adventure. No cartoons were mentioned until the 20th ranked program.

Differences, along stereotypic lines, emerged between the favorite viewing choices of boys and girls. Little House on the Prairie, Eight is Enough, Love Boat, I Love Lucy and other shows with family/human relationship themes and/or with leading female characters were chosen more often by girls. Boys chose action/adventure, physical endurance and competition in Spiderman, sports shows, Star Trek, Black Sheep Squadron and others of that ilk.

When questioned on what they actually viewed on a particular day, boys and girls agreed much more than on what they considered

their favorite program. Movies were in the top programs viewed every weekday, and Brady Bunch was near the top on all weekdays. Happy Days, Laverne and Shirley and Three's Company were also favorites of both boys and girls.

Minority children were attracted to shows with same ethnic group leads, but were not necessarily attracted to different minority group leading characters, i.e. Black respondents showed greater interest in situation comedies about Black urban families: Good Times, What's Happening, and Baby, I'm Back. Among ethnic groups surveyed, Latinos were least interested in these shows. (52) In another study, it was found that identification was strongest with characters of like sex, ethnicity and social situation, especially if this character acted and spoke in ways appropriate to his or her situation. It was found that girls did, upon occasion, identify with male characters. Boys did not exhibit this cross-sex identification. (26)

Another study asked a group of 6-12 year olds to name their favorite programs. Choices tended to be in the cartoon, fantasy, situation comedy and drama categories. Preferences differed between boys and girls and between younger and older children. For all boys but the 11-12 year olds, cartoons were a clear favorite. Mystery-suspense dramas were the favorites of the older boys. Situation comedies (largely of the family type) were the first choice of girls in all age groups. The results seem to support Arbitron's findings that interest in cartoons fades for older children.

Few specific shows were mentioned as disliked. Instead, dislikes were generic: love movies, news, talk shows and children's programming such as Captain Kangaroo (considered babyish). (68)

Similar results were found in a fifth grade population. Girls liked human interest and fantasy, boys liked sports and action programs, both realistic and fantastic. (25)

Another researcher found increasing interest in news and information programs as children approach 10-11 years. The favorites of both boys and girls were news features concerning crimes, disasters, local sports and about children. The next two favorites for boys were space and sports; for girls, human interest stories. (21)

Although there is variation in research findings, there seems to be some consensus about themes that are generally attractive to the 8-12 year old viewer. The attraction or appeal of a program theme, however, is often closely allied with elements affecting comprehension and identification. CTW has obtained some interesting information on this from the test show evaluation of 3.2.1. Contact:

1. A strong storyline, clearly focusing on a central problem, is appealing to this age group. A rambling rhetorical style leaves children feeling that "nothing was happening." Topics with emotional appeal (touching on the health or well-being of living things) serve well as a structure onto which factual information can be added. A plotted drama has more appeal than the magazine format.

2. Action, movement, the unexpected, the novel are well attended to and understood, especially when they are handled with strong visual interest. Visually presented information is remembered better than orally presented information. Visually clear animation is an excellent device for reinforcement.

3. The liveliness that humor and music give a program is a definite positive element. The participation that laughter and singing along creates also created an interest in viewing the show.

4. An "adult expert" character does not work well in the documentary setting. An information exchange between kids is much more interesting to this age group.

5. Stating the major concept up front may seem overly obvious to the adult, but can actually raise the interest level of the child. CTW research found that lacking a clear statement of the overall concept of a program, children were not able to identify it. (9)

A final informational note comes from the reaction to a British series on health for the child over eight. It is called Good Health and its aim is to increase children's awareness of themselves as they grow, and to emphasize their own responsibilities for personal health. The focus is less on biological information than on the ways personal choices influence health. The settings are closely related to the everyday lives of children and their families. It has been viewed extensively in a school setting and the producers report enthusiastic response. In their view, some of the reasons for this are:

1. Material was provided in an area children thought was important.

2. Viewing children found it easy to identify with the characters and settings presented.

3. Children were shown behaving naturally in their own enviroments.

4. Format differed from show to show ranging from documentary to scripted drama. This variety was felt to provide appeal. (29)

2. The Target Age Child As A Learner

It has long been recognized that children of different ages respond differently to the same stimuli. Theories of cognitive development, primarily those of Jean Piaget, go a long way toward constructing a developmental picture of how a child perceives and interacts with the environment. More to our point, it sheds some light on how children of different ages respond to television.

A cognitive state or structure is a pattern of action that orders and defines what a child perceives. A child develops gradually through a series of states during which his ability to think and understand is being developed. Most of these stages depend primarily on maturation, but they are also affected by experience.

In the area of perception, for example, a child aged two to seven (the preoperational stage) tends to focus on one dimension of an object or situation and cannot take other dimensions into account. Therefore, he cannot see the relationship between two dimensions.

The older child (concrete operational) can focus on several dimensions of a situation or problem at the same time and can see relationships among them. He can decenter his attention to consider a greater number of physical aspects. He can perceive objects not only in terms of physical characteristics, but can also begin to figure out how unfamiliar objects might be used.

In the following section on the target age child as a consumer, we will show that, with increasing age, the child is better

able to tell the difference between programs and commercials, and that the older child is better able to understand the purpose of commercials.

Two other areas in which the younger and older child differ greatly are in the conceptual grasp of temporal order and in recall of things they have seen.

The younger child has a very intuitive sense of time. Duration of time, speed and distance are not real concepts for him. The older child, who can isolate the changing dimensions of events, is able to understand relations between temporal order (before and after) and duration (longer and shorter). He can begin to relate past events to the present and to the future. (74)

Continuity thus becomes very important to the understanding of TV plot by children who are not fully into the concrete operational stage, (the younger children in our target audience). In one instance, third, sixth and tenth graders were shown an aggressive action show. Half of each group viewed the show straight through. In the other half, the motives of aggression were separated from their consequences by four minutes of commercials. Responses were essentially similar in both versions for the older subjects. However, the commercials interfered with the third graders' comprehensions of the negative motives and consequences of aggression. (74)

In the area of conceptual processes, there are great dif-

ferences between the older and younger child. Only by age 11 or 12 can the child think abstractly about ideas. To cite one example: second, fifth and eighth graders viewed one of four edited versions of an action-adventure program that varied in number of scenes and degree of organization. Memory for implicit information, as opposed to facts about the plot, was higher for fifth and eighth graders. (13) The older child can also test ideas and think about real or possible consequences of a situation. This increases a child's ability to understand motives in presenting commercials.

The ability to recall pro-social messages and other information has also been the subject of study. The Office of Social Research at CBS has done a series of evaluations of several Saturday morning TV shows (Fat Albert, Shazaam, Isis, U.S. of Archie, and the Harlem Globetrotters Popcorn Machine). Many of the results are in line with cognitive development theory.

Children ranging in age from 7 to 11 were interviewed about the Fat Albert Show. Overall, 9 out of 10 children received one or more specific pro-social messages. More 9 and 11 year olds received messages than 7 and 8 year olds. White lower class children received more messages (90%) than Black lower class children (83.7%). Reception of messages was not related to frequency of viewing Fat Albert nor to liking the particular episode viewed. More than 90% of the specific messages were derived from the stories

of the episodes, as compared with reception of messages from the remarks of Bill Cosby or the song about the episode. Cosby served as a better source of a generic message such as "you may learn something" than a pro-social message.

Findings concerning the other shows were similar, with a few exceptions.

In U.S. of Archie, reception of at least one factual message about history was equally likely across sex, race and social class. In one episode about George Washington Carver, black children were more likely than white to comment on his blackness. The reverse pattern was observed in other studies showing Blacks in humorous situations. That is, Whites were more likely than Blacks to spontaneously mention the blackness of the character.

Reaction among seven and eight year olds to Shazaam, a superhero story, indicated that lower class children received significantly more pro-social messages than middle class children. This was not so among 10 and 11 year olds.

Thirteen and 14 year olds were also included in this study. Their reactions were found to closely resemble the reactions of the 10 and 11 year olds. Age differences were primarily in the greater degree of sophistication and abstraction in responses of older children, rather than in response levels. The messages they received were subtler -- "Don't let others lead you astray," and "Accept yourself as you are." (14)

In other words, older children received the same number of pro-social messages but they reported more abstract interpretations. Younger children's reports were more literal and concrete.

3. The Target Age Child As Consumer

The target age child watches lots of television and television has lots of commercials. How does the child react to them - cognitively, emotionally and in terms of his behavior?

Once a child is 7-8 years old, he has a pretty good understanding of the codes and conventions of advertising. With very little guidance, children become aware of the physical and functional factors which differentiate commercials from programs. (3) By fourth grade, students can comment on techniques employed in the construction of commercials. (6) This ability to "decode" commercials increases with age, relative cognitive development and experience with the medium. For example, 99% of the fifth graders, 88% of the third graders and 50% of the first graders in one study showed some understanding of the persuasive motive of commercials. (84)

With age comes an increasing disenchantment with commercials. At about age five, children begin to characterize advertising in general as "annoying," "time consuming" and "untruthful." (10) One study indicates that children's antipathy is based on the manner in which commercials intrude into their viewing, particularly at peaks of tension or suspense. (68) Another study showed that

56% of the fifth graders, 68% of the third graders and 50% of the first graders attributed an "assistive intent" to commercials, i.e. that commercials "tell you about things." (84)

Thus, thinking of commercials as providing information increases with age to a point, then begins to decline. This finding supports the data on children's growing distrust of commercials with age.

Interviews with 5-12 year olds that asked children to recall their favorite commercial showed most children recalled food advertising. Entertainment (humor, good music, cartoon) was cited as a reason for liking a commercial. Disliked commercials were considered boring and dull. Most of the children did not believe that ads always tell the truth. Older children (11-12) often suspected the motives of commercials, i.e. to sell means to resort to untruth. (51)

Observers of 5 through 12 year olds found that attention to commercials was highest at the beginning of a program. At the commercial onset, 11-12 year olds were more likely to make a dislike response, while children under 10 would say things like "now watch this, this is a good one." (63)

Actual consumer behavior is somewhat counter to expectations. According to one study, children's desire for products they see advertised and their requests to parents to buy these products, hardly decline at all with age. Heavy viewers ask for advertised products

more often than their lighter viewing peers. (59) (10) Another researcher found a decline with age in attempts by children to influence parential purchases (food purchases were the only products considered in this study). Still, 36% of the third graders and 28% of sixth graders tried to influence parental food purchases. One-third of the third and sixth graders frequently requested specific brands. (74)

Whether they like commercials or not, it seems that children are persuaded - at least enticed - by them.

Evidence shows that much of the concern about the "duping" of the child by commercials is more properly directed toward children younger than the POWERHOUSE target age. By 8 or 9, a child is very suspicious. It is very important to him not to appear foolish by not understanding what is going on. Watching this age group watching a magician is a good illustration of this point. They challenge his every move: "Oh, I know how you do that." If they are close enough, they will even attempt to look up his sleeve or under his jacket for a vanished object. Once a child has this basic capacity to distinguish fantasy from reality and his perspectives from those of others, he has a reasonable chance of appraising the trustwor hiness of particular information or influence.

SECTION II

RESEARCH FINDINGS FROM THE ADVERTISING LITERATURE

Advertising, the most familiar form of persuasive programming, has two functions:

1. to increase and reinforce what a person knows about a product; and

2. to forestall forgetting (or decay). (28)

Changing a person's attitudes or behavior, as opposed to reinforcing present attitudes or activating those already predisposed, is beyond the scope of most advertising except when:

> The attitude or behavior is of little importance to the individual.
>
> The person has no predispositions toward the product. People may be affected by new product advertising because they have not yet formed negative attitudes toward the product.
>
> The factors that normally favor maintenance of the status quo, favor change. If our friends begin buying color televisions we are more likely to be influenced by advertising for color televisions. (16)

Much of the advertiser's approach to the audience is based upon instinct. However, there appears to be some basic rules of thumb that most agree should be recognized before designing a message.

The importance of agreement between audio and video; the need for simplicity and the communication of a single message; the issue of "believability;" and the relationship between "liking" and effectiveness are some of the most frequently mentioned factors.

Other issues that may be broadly defined as ones of approach are the design of the appeal, the selection of format, the role of the endorser or talent, the function of music and the use of color.

A discussion of each of these approach variables is presented next. In an effort to minimize jargon, each variable is introduced by a simple declarative statement. This is usually followed by a discussion supporting the statement. Some issues, like the purpose and design of the humorous appeal are discussed in many facets because references to the use of humor in advertising are abundant in the literature. Others, like that of the quiz show format, are included because it was felt the information might have some usefulness to the POWERHOUSE production team. A discussion of program environment factors -- length, position and repetition -- concludes Section II.

1. The Advertisers Approach

When the video and the audio illustrate an identical point in a message, recall is improved.

There are four variables present in television programming: picture, print (written words), voice and sound. Each one can be manipulated by the producer in obvious ways. There is general agreement that video, particularly pictures, is the most powerful of the variables, as illustrated in the anecdote below:

> A television commercial for a proprietary remedy said that it neutralized acid in the stomach and showed it dissolving a beaker labelled "stomach acid." The voice-over clearly stated what was going on. However, most respondents thought it had been dissolved in water and concluded that it was recommended to be taken in water.

In descending order of their ability to generate recall, the four variables rank as follows:

•picture - the image on the screen;

•print - the use of printed words or letters;

•voice - the actual spoken line;

•sound - all audio except voice (i.e. music)

Among combinations of three, picture, print and voice obtain the highest ranking. Voice, print and sound rate lowest. Effectiveness is enhanced when picture, print and voice illustrate an identical point in a message. (5)

Clearly, non-verbal communication plays a most important role in advertising. It can work powerfully to associate a product with desired (or undesired) connotations. In addition, it can sometimes avoid the risk of arousing explicit objections to direct claims which verbal communications may face. (4)

> Loading the commercial with a lot of words and little visual interest is the equivalent of putting all the fine print on the front of the package.

No matter how straightforward or oversimplified the presentation of a commercial may seem to those preparing it, the average viewer cannot be expected to gain more than a general impression of what the message is about. (6)

The commercial should, therefore, be designed for high visibility and distinctiveness. Ease of product identification should be the objective. The need is not to abandon words but to use them less indulgently than pictures. (73) A good 60 second commercial,

for example, may have only 25 seconds of copy. The rest of the time is used to set up a situation, to get interested, to lead the viewers gently into the story and leave them with something memorable. (39)

Four key elements have been identified as good predicators of memorability. Each one is associated with simplicity:

> Pictoral value - To what extent does the picture assist the sound tract in getting the copy message across?
>
> Empathy - Does the message speak to the viewer personally?
>
> Interest - How well does the commercial resist boring the viewer?
>
> Clarity - Does the Commercial speak straight rather than imply, and avoid talking in riddles? (30)

Complexity of presentation and a great variety of visual cues may distract the viewer from the main principles of the presentation. There are times when distraction is used effectively, but this is always manipulated by the producer...not an unexpected outcome. (62)

In general, "liking" is probably not positively associated with effectiveness.

There is some evidence that there are two aspects of interest: stimulation and enjoyment. Stimulation is represented by such descriptions as: "imaginative," "startling," "novel." Enjoyment is represented by descriptions such as "entertaining," "pleasant," or "amusing." Some studies indicate that the former group -- stimulation -- is more strongly associated with effectiveness than

the latter, which has more to do with liking. (41)

Unpleasant things may be learned as readily as pleasant things. The most ineffective stimuli are those which arouse no emotional response. (7)

Wholehearted belief of advertised claims is not expected.

There is some evidence that viewers look upon advertising as a "game." Descriptions and claims are expected to be somewhat exaggerated and are not to be taken literally. However, there are clearly established bounds within which the advertiser is expected to stay in order to play fairly. It is assumed that both advertiser and the viewer understand the "rules." What matters to the advertiser is whether the consumer believes what it is intended he should believe about the product, not what the claims literally say. The advertiser's ultimate goal is to stimulate the consumer's "curious non-belief," (i.e. "I don't know whether the claim is true or not, but I am interested to try the product.")

One persuasive device used to stimulate curious non-belief is the use of statements or arguments with which the consumer will almost certainly agree in order to get him in the right frame of mind to receive new information or arguments.

The first time the consumer is exposed to the commercial he makes a very general "what's this all about" judgment. At this stage, the ad loses any chance of being believed unless it is somehow related

to previously developed beliefs, interests or attitudes. (31)

a. Design of Appeal

Match appeal with group predisposition, if known or assumed.

Presenting both sides of an argument is more effective if the target audience is initially opposed to the issue.

The one-sided argument is more effective with those initially favoring the communicator's position.

When the distance is small between the viewer's own stand and the position advocated by the commercial, the viewer is likely to see the message as being fair and factual and to think it is even closer to his own stand than it actually is.

Factors which interact to make an individual more or less predisposed to be influenced by any particular communication are:

1. The physical and economic reality that an individual experiences;
2. The individual's personality; and
3. The social environment in which he lives. (16)

Once the viewer focuses attention on an ad, the message must find its way to the viewer's already existing attitudes toward the product without being side-tracked. No single advertisement is likely to be believed if belief requires the viewer to change his mind about a product. Unless the consumer is already "sold," adoption of products (or behaviors) can take months, even years.

The consumer should be able to recognize easily that the message relates to the advertised product in a way that is relevant to his own needs and interests. (31) (41)

The rational appeal should be believable.*

The advertiser must not promise more than a potential user thinks the product will deliver. As an illustration:

> A product performs exceptionally well in tests. The only problem is that the test results are so remarkable that very few people believe the claims enough to try the product. The advertiser is unable to convince potential customers of the exceptional performance of the product, he might be better advised if less were claimed for the product. (16)

The minimal fear appeal is more effective than the strong fear appeal.

When fear is strongly aroused but not adequately relieved by the reassurances contained in a commercial, the audience may ignore or minimize the importance of the information presented. (16) In one research study the authors suggested that one reason for this reaction is that subjects exposed to the strong fear appeal showed more resentment toward the communicator and were more likely to reject the whole message.

The experience of early anti-drug public service campaigns supports this research. When the strong fear approach was used, personal experiences or first-hand reports by peers to the contrary served to seriously reduce the credibility of the producer. If

* Being believable and being believed are distinct.

people can rationalize their rejection of an argument by saying "That isn't how things are at all," or "He doesn't have my problems." communication will be impeded. (41)

Humor is emotion.

There is evidence to suggest that attention, learning and comprehension are all affected by the emotional environment in which a message is presented. (54) Some advertising strategists believe that emotional appeals are superior to rational appeals; and that humor -- to the extent that it functions as a positive reinforcer -- is more effective than fear. (66)

In general, however, humor in advertising is like seasoning in food. A little enhances the flavor, too much applied with a heavy hand overpowers without improving. Further, when used in advertising it should be in tune with any major emotion that is inherent in the nature of the product. Humor is inappropriate when the message involves an element of fear (i.e. the discussion of disease). (37)

Exaggeration, even though not soliciting conscious belief from the viewer, can sometimes put a point more dramatically than any other means. Humor is one form of exaggeration. (81)

The first job of humor is to attract attention and then impart pleasant information leading to a soft sell.

Humorous advertisements have been defined as those containing:

A pun - the humorous use of a word or phrase in a way that suggests two interpretations.

Understatement - representing something as less than is the case.

Joke - speaking or acting without seriousness.

Something ludicrous - that which is laughable or ridiculous.

Satire/Sarcasm - used to expose vice or folly.

Irony - the use of words to express the opposite of what one really means. (42)

A successful comedy spot makes the audience empathize with the situation or characters; it has a strong point of identification. Either the characters must be real, recognizable people who react in a believably human way to an absurd or incongruous situation, or the situation must be ordinary and believable but involve slightly daffy characters whose reactions are amusing or ironic. (71)

A funny voice doesn't make a spot funny. What makes a spot funny is a real voice saying funny things or reacting to a funny premise. (71)

Humor for the sake of humor is not thought to sell.

There is a considerable debate on the effectiveness of humor in persuasive communications. While most advertisers agree that if used correctly, humor enhances attention, the degree of message comprehension is questioned. However, even proponents of humor caution that a humorous appeal must be relevant, perceived as

funny and directed at the product not the potential user. (66) (42) This does not mean that a humorous commercial should make fun of the product, rather it should have fun with the product. (71)

Few advertising fates could be worse than to wind up establishing the product merely as being made by a sponsor with a wonderful sense of humor. Humor is only helpful when it is woven into the product story.

When humor fails it is usually because it tries too hard and becomes too forced to be funny; it makes the mistake of making fun of the product or diverts attention from the sales story rather than emphasizing it. (37)

Humor that induces a smile or chuckle is far more effective than humor which results in a belly laugh.

If the viewer gets lost in the laugh, the product is obliterated by the comedy. Even if the product is not the object of the humor, it should always be the object of the spot, the pivotal element.

Product awareness is the key. It's a sure sign of failure when the listener laughs uproariously and later repeats the spot's hilarious lines, but cannot remember what the product was. (71)

Further, if commercials are to repeat, it must be remembered that the best jokes don't bear much retelling. (81) Commercials whose single point of humor is a gag or punch line appear to wear out quickly. (28) Humorous commercials that tell a story build up

a constant sense of anticipation. (36)

Humor may enhance source credibility

In one study, a dull communication was presented in both a humorous and serious version. The source was more highly rated when he presented the humorous rather than serious version of the appeal. If it is agreed that most commercials are perceived to be dull, then the addition of humor may enhance the audience's perception of the message source. (66) If it's done well, humor can establish the advertiser as modern, wise and not stuffy. (81)

Humor is effective in driving home the ridiculousness of outmoded practice. (37)

Humor is effective in telling a simple story. (37)

Humor distracts an audience.

This is one reason some advertisers are opposed to the use of humorous appeals. However, distraction also inhibits those audience members who initially oppose the arguments advanced in a commercial.

In one study, increasing the level of distraction through humor caused a decrease in counter-argumentation and an increase in persuasion. (66)

Humorous messages may detrimentally affect comprehension. (66)

While humorous commercials are recalled more frequently than non-humorous, recall of the products or services promoted is much higher for non-humorous ads. (54)

Humor is subject to a high rate of failure.

Humor is not the easiest of skills and is apt to misfire more than a serious approach. It tends to be highly selective, steering a course between being over some viewers' heads and being too corny for others.

It can leave the impression with the viewer that the advertiser is apologetic about his brand and doesn't feel his story is worth presenting on its merits.

Humor seems less likely to go awry in animation. (81) This may be one reason why humorous advertisements are more likely to contain animation. (42)

Use of a variety of appeals to communicate the same message improves the chance of persuading greater numbers of people.

The use of a variety of appeals for the same message provides the advertiser two advantages:

1. It increases the possibility of triggering off one or more predisposing attitudes.
2. It allows the advertiser to repeat the product story several ways without arousing the wrath of the listener who might be irritated by constant repetition of the same appeal. (16)

Regardless of the type of appeal selected, two elements are necessary: "belongingness" and "satisfiers."

"Belongingness" means that the elements to be learned must seem to belong together, must show some form of relationship or sequence. For example, it is easier to learn 2, 4, 6, 8 which seems to belong together, than to learn 2, 1, 4, 7, 43, which do not.

"Satisfiers" are real or symbolic rewards, as distinguished from annoying consequences that may be present in the learning process.

In many learning experiments, it has been demonstrated that merely to say the word "right" when the person is making the correct response helps to speed up the learning process.

b. Selection of Format

Animation attracts children the way a porch light attracts bugs.

Animation appears to have undeniable visual appeal just because it creates something fantastic -- unreal. It seems to prompt the audience to respond with a free association of images. It is able to achieve a balance of fantasy and realism that often sets the appropriate tone for a sales message. (1)

Animation can be used effectively:

To portray phenomena unphotographable from real life (i.e. the inner workings of an atom.)

To exaggerate something the filmmaker wants the audience to notice.

To depict a setting that would be costly or impossible to build.

To make a dull or possibly embarrassing subject digestible. (8)

Some product types that have benefited from animation are:

The low interest product - here the cartoon can stimulate attention to cloak the story in more interesting terms.

The fun product - "brand personality" is tailored along with the technique (i.e. Levi jeans).

The new look at an old product.

Selling services - i.e. "walking through the yellow pages." (50)

Using animation as a teaching tool requires some thought about how children learn.

Some thoughts on animation as a teaching tool:

An unfamiliar object is more likely to be seen and understood when it is presented in drawn animation in a position in which it would normally be seen, than when it is displayed at an unusual angle.

An object framed by lines that are not parallel to the television screen will result in the child viewing the object as tipped at an angle, and therefore may be confusing to the learner, especially if the object is unfamiliar to begin with.

Children will be better able to distinguish an object as a figure in drawn animation when shading and corners are used to emphasize the relevant objects but not the irrelevant background.

When several objects are depicted in drawn animation, the brightest (most well illuminated) ones will dominate.

Animated elements will assist learning when the ele-

ments are cues relevant to the learning task. Conversely, when irrelevant elements are animated, they act as distractors and therefore inhibit learning.

Drawn animated sequences that begin with realistic but simple pictures and then progress to more abstract visualizations will facilitate concept learning. (8)

Animation that is drawn, as opposed to pixilated or rotoscoped, may be best for providing generalized visual examples.

An animated dog, for example, is non-specific. Cartoon dogs (Pluto for example) employ features that make them distinguishable as dogs without resembling any specific real dog. The learner is not distracted by features and distinguishes one specific example from all others. The animated sequence should include many generalized examples of dogs to facilitate the learning of the concept "dog" to a greater degree. (8)

Young persons, like adults, generally believe that television news is credible. (15)

This is supported in the focus interviews conducted for POWERHOUSE. Every child indicated that the news was "true" and that they "would believe" it if they were told a fact on the news.

Further, the news and information format appears to be a blossoming category in the children's field -- particularly on the local level. (65)

Based on a survey of 6-11 year old children, news watching and information gain increased with age. Twenty-three percent of the

sixth graders reported frequent news watching. Crimes, murders and disasters were among the news topics children checked most frequently. The least popular topics dealt with government stories and "What the President said." The children tended to see television news as being about bad or sensational events rather than good or neutral events.

Boys preferred stories about sports and space shots more often than girls. Girls preferred stories about doctors helping people, and other human interest topics. However, crimes, murders, disasters and children were the most frequently checked topics for both sexes.

At least 75% of the children in all grades ranked television as the first or second choice as the best place to get news. (21)

Quiz shows are useful for transmitting hard, objective facts.

Quiz shows might be well used as summaries or reviews for certain courses of study. They are also effective in giving up-to-date facts on changing phenomena. (72)

Most commercial programs dealing with health exploit the dramatic potential of medical crisis.

These programs tend to reinforce the notion that all health problems can be solved simply by going to the doctor or hospital. This retards the efforts of health educators to make the public understand that a healthy lifestyle is the best method of maintaining

good health.

In a study of health information during a week of television it was found that only 7.2% of the time was devoted to health material and that 70% of the information presented was misleading, inaccurate or both. Nonetheless, 48% of the people questioned felt they got something useful from watching health programs. (47)

Learning is aided by active practice. (28)

Where possible, practice should be distributed over several periods. Brief, concentrated and temporarily high pressure tactics should be avoided.

Practice in small amounts spread out over longer periods of time is also more effective for learning of verbal material. (32)

When teaching people to master skills, it is better to show the performance in the same way as the learner would see it if he were doing the job himself.

When illustrating a sequence of acts the viewer is expected to repeat, it may be better to employ a subjective camera angle so that the viewer can see the demonstration in the same way they would see it if they were doing it themselves. (7)

A researcher (Gagne) suggests a method of teaching concrete concepts.

1. Present an example of the concept and tell what the concept is verbally.

2. Show another example and repeat the concept.

3. Give a negative example and say this is not an example of the concept.

4. Give another negative example.

5. Show an example that includes both positive and negative instances of the concept.

6. Test the learner with an example and ask her to derive from it the part that indicates the concept. (8)

c. The Role of the Endorser

Identification with television characters seems to change around eight years old.

With young children, children's programming seems to be preferred; adult shows watched by younger children reflect the family's taste and habits rather than the child's. Some results indicate that children begin to take a personal interest in adult programming at about age eight. While they still view children's shows, they become more critical of them. Both the child developmental literature and the results of the focus interviews conducted for POWERHOUSE support the idea that children in our target age range, while still watching children's programming, are more likely to cite adult programming as "favorite." (26)

Two types of identification with television characters seem to operate: similarity and wishful identification.

Both are dependent upon the individual characteristics of the child, and factors such as sex, ethnicity and social situation are

important. However, it has been shown that children identify with mass media figures like themselves. Boys identify with boys, children from various social classes identify with figures representing their social class. One exception to this pattern is that girls will, on occasion, identify with male characters. Boys do not normally display this flexibility.

Wishful identification is based on the child's desire to be like the hero or heroine. Results indicate that similarity identification is more characteristic of realistic programming, while wishful identification is encouraged by clearly fictional or fantasy programs. (26)

There are different types of endorsers.

Three types of endorsers are frequently used in advertising:

1. The celebrity - an individual known to the public for his or her achievements in areas other than that of the product endorsed.

2. The professional or recognized expert - an individual or group possessing superior knowledge regarding the product.

3. The typical consumer - an ordinary person who is expected to have no special knowledge of the product except that acquired by normal use.

The effectiveness of the spokesman should be evaluated in terms of his or her ability to induce consumers to like the product, not in terms of his or her personal likability or popularity. (43)

One recent study found support for the following conclusions:

> If the major risk inherent in the product is social and/or psychological, the celebrity would be the best endorser, i.e. Farrah Fawcett for a shampoo.

> For complex products high in financial, performance or physical risk, the advertiser should select the expert endorser, i.e. E.F. Hutton on financial matters, Billy Jean King for tennis racquets.
>
> For products with little inherent risk, the advertiser should choose a typical consumer endorser, i.e. Oscar Meyer franks, most children's cereals, snack foods. (27)

Regardless of the endorser selected, a rule of thumb is that models should handle and/or be involved with the product. (42)

It should be noted that messages attributed to persons held in high esteem influence change in opinion more than messages from persons not so well known, but after several weeks both messages seem equally effective. The implication here is that it may not be essential to employ high priced, well known talent in testimonials when trying to build a long range favorable climate for a product. (7)

Another study found that details of character's appearance are not as important as qualities of action and story. (60)

<u>An endorser should project a trustworthy image</u>.

Some attributes that an endorser should possess in order to induce attitude change are trustworthiness, expertise, similarity, attractiveness and likableness. The most important of these is trustworthiness. Without it, any other quality possessed by the communicator is not effective in producing attitude change. (27)

Sex and race are factors in identification and appeal of endorser.

For females, recall is enhanced when a commercial affords female identification. (6) Yet unlike boys, girls have also been persuaded by opposite sex endorsers. (26) (31)

Girls who saw a commercial in which girls were playing with traditionally male-oriented toys (cars) were far more likely to feel that it was appropriate for girls to be playing with them and were slightly more desirous of doing so. (18)

While both sexes respond to both types, boys respond better to purely physical treatments, girls to more social or interpersonal ones. (60)

Blacks who viewed a commercial where white children were playing with a product choose to play with it more often than Blacks who viewed a black child playing with the toy. (18)

Further, the degree of persuasiveness of a humorous commercial may be dependent upon ethnicity. In another study, commercials rated as "very funny" by white children were not considered funny by black children. (56)

Products that are advertised as containing a premium or prize are effective.

Three versions of the same commercials are tested. Each was identical in terms of talent and selling points. The role of the endorser was manipulated as follows:

Host selling - the program talent also advertised the product.

Announcer - an unseen voice.

Premium - a gift or prize was offered with purchase of the product.

Children consistently selected the product that promised the prize, with younger children more likely than older ones to select the product on that basis alone. The host-selling appeal was next most effective, with the announcer appeal least effective of the three. (34)

Children like animals.

Children's interest in and identification with animals is well documented.

Animals in the mass media are often portrayed as kind, intelligent and slightly mischievous creatures who are sometimes threatened by, but helpless against, danger. In other words, animals are given the same role in relation to the child as the child often has in relation to adults. Identification seems to occur when the animals are perceived to be personified. (26)

Cartoon animals generate pleasant associations.

Cartoon animals alone are thought to be more effective, on the average, than cartoon people or cartoon people and animals together.

Three points may be useful to bear in mind:

1. A number of commercials were tested in which animated creatures were subjected to gunfire and other forms of harrassment. This approach proved ineffective. (This is contrary to full length animated programming where animals are subject to poundings, long distance falls and smashings with regularity.)

2. Cartoon animals should not be involved in a hard sell.

3. Like everything else in the message, cartoon animals should be involved in the action. (Don't use the animals just because they are "cute.")

On the negative side, cartoon animals generate low remembrance of sales ideas. But, they are usually extremely well liked, so, their motivating power aside, they may create an attitude of good will toward the message.

d. Use of Music

Jingles with melodies borrowed from old or new folk songs, and with words that are fun to sing will give the message long lasting bounce and a life of its own.

Follow the bouncing ball may be effective*

Showing the words to a commercial jingle on the screen has been used successfully. Even if the children do not sing along, this technique may aid attention. (See "When the video and the audio illustrate an identical point in a message, recall is improved," page above.)

Guess the last line of the jingle is another effective technique.

Use of this approach will get the child thinking about the ad-

*"bouncing ball" is proprietary.

vertised product as long as the jingle is directly related to the product.

e. Use of Color

Brighter colors get more attention than softer colors.

Research seems to bear out the theory that the red end of the spectrum has the higher attention value. However, greens and blues have more soothing effects and a higher preference record in holding continuing interest.

Color, balance and weight should also be kept in mind, and the following chart may be used as a guide in selecting colors when no other basis is available.

Color	Positive Factors	Negative Factors	Complementary Color
Red	warmth excitement	danger anger	green
Yellow	cheerful light	dishonesty sensational	purple (blue)
Blue	cool serene	depressing melancholic	yellow (orange)
Green	nature-youth cool in the lighter hues	envy immature	red (pink)

When legibility is a factor (as in captioning) various colors have been ranked as follows:

1. black on yellow
2. green on white
3. blue on white
4. white on blue
5. black on white
6. yellow on black
7. white on red
8. white on orange
9. white on black
10. red on yellow
11. green on red
12. red on green (80)

2. The Program Environment

Program environmental issues are frequently discussed in the literature. The research covers three broad categories:

Repetition or the number of times a commercial can or should be shown.

Position or placement of the commercial for optimal effectiveness.

Length or the amount of time devoted to the message.

Clutter creates confusion.

Clutter usually consists of the closing billboard of one program and the opening credits of another, spot commercials, station identification and PSAs. (78) The effects of clutter appear to be greatest on attention, recall and cognitive response. (79)

Although this implies that the single commercial in an island position would be more effective, this is not necessarily the case. It seems that the seasoning metaphor applies to clutter as it did to humor. Non-program material (clutter) is like seasoning in food. A little enhances the flavor, too much applied with a heavy hand overpowers without improving.

Contrasting the program environment and the ad may positively affect attention.

Humorous commercials were recalled more frequently than non-humorous when presented within both a documentary and an action-adventure program format. Conversely, non-humorous commercials

had a higher recall rate when shown within a situation comedy program.

This suggests that ads may be more effective when they contrast with the program environment within which they appear. This would at least partially explain why humorous ads are recalled more frequently in the serious documentary and action-adventure setting than in the humorous situation comedy setting. (48)

a. Repetition

Each insert may be repeated three times for maximum effectiveness.

There is general agreement that repetition of the same commercial results in stronger effects than a single exposure. A variety of research procedures suggest that three exposures may provide optimal effectiveness.

> Exposure number one is unique. Like the first exposure of anything, the reaction is dominated by a "What is it?" response. Exposure number two replaces the "What is it?" with "What of it?" That is, having appreciated the nature of the new information the viewer can now shift to a question of whether or not it has personal relevance. Another unique response to the second exposure is "Ah ha, I've seen this before." The virtue of this response is that it permits the viewer to pick up where he left off before. This may be where the "sale" occurs.
>
> The third exposure is the reminder. That is, if the second was successful in relating information of some personal consequence, this is also the beginning of withdrawal of attention. (44)

This three exposure phenomenon is only operational when the viewer is able to see how the information provided in the first exposure is relevant to him or her on a personal level. Members

of the audience must interpret or perceive correctly what action or attitude is desired by the communicator or they may not remember the message even after seeing the commercial many times. (83) (79) (35)

b. Position

The pattern of breaks should vary.

Viewers seem very well attuned to the pattern of breaks on their favorite shows. Results from two studies showed that viewers displayed less attention, recall, cognitive response and attitude response when the commercial pattern is typical for the program. This sense of program pattern allows viewers to avoid being strongly affected by commercials. (79) (57) (85)

In another study, commercial breaks were varied between program material of 1.5 and 23 minutes. They found that the relationship between the length of a preceding program interval and the viewing of the following commercial break was inverse. That is, the longer the program was on, the more likely it was for the viewer to be inattentive to the material presented in the break. (35)

Position in a commercial string is critical.

Once again, the magic number three arises. In one study, comparisons between commercial breaks with one and three commercials and two and three commercials found that breaks of three commercials were more effective than breaks consisting of either one or two commercials. (35)

The first position produces the highest recall and attention scores in almost all cases. Both scores decline somewhat for the second, with another increase evident for the third and final announcement. (79) (57)

c. Length

Length of the commercial is dependent upon the product.

Logically, it should be easier to hold someone's attention for ten seconds than for sixty seconds, and some evidence supports the logic. (48) (67) In addition, some advertising practitioners maintain that short commercials are not only ideal as reminders of famous brands, but can do anything a minute can do, and do it more efficiently.

One ad man's explanation for this is that the shorter commercial, by necessity, contains fewer copy points, so that the viewer has less to remember. The viewer will perceive more copy points in the longer message, but the points perceived tend to be those that are less important in the purchase decision. (82)

On the other hand, the longer (60 second) commercial may create a better impression on the consumer, particularly when time is used to create a mood rather than to increase the amount of information provided. (82) (78) In addition, the longer commercials are more effective when the purpose is to impart new information and when learning (particularly demonstration) is necessary. (49)

The longer commercial enables the advertiser to fully demonstrate a concept.

A mood often needs time to be developed, and the longer commercial may be more effective in promoting a high priced product. Further, the longer commercial can help the advertiser take a demonstration from one step to the next in a more leisurely fashion. (82)

Another advantage of the longer spot is that, by its very length, it helps to avoid clutter. (78)

The 80-120 second break is more tolerated.

Three lengths of commercial breaks were tested; short (60 seconds or less); medium (80-120 seconds) and long (190-or more seconds). The medium length was superior to either the long or the short break in terms of both attention and recall. (35)

Another study supports this point, finding that "commercials in the 71-90 second group average especially well." (39)

SECTION III

SUGGESTIONS FOR POWERHOUSE

The following suggestions for POWERHOUSE are written as simple declarative statements. The researchers felt that the POWERHOUSE production team might find this format an easy way to take a second look at the information provided in the two sections above.

Each statement is accompanied by page numbers that refer the reader to the text for further information. Many of the statements are direct quotes from the text and can be easily identified. However, some are inferences made by Audience Profile Services' staff, and the reader is asked to read the statement and either accept or reject our inference.

Once again, the reader is asked to use this information as it has been intended; not as a prescription for programming, but as fuel for the creative fire.

Suggestions for POWERHOUSE

	Text Page
A clear, simple statement of purpose, focusing on a central problem, must be made.	6
A strong storyline is appealing to this age group.	6, 9
Continuity is important.	9, 27
Visually presented information is better remembered than orally presented information.	6, 16
The audio and video should agree for maximum effectiveness.	16-18
Non-verbal communication can help to avoid the risk of arousing explicit objections to direct claims.	17, 18, 25

	Text Page
The written word is more effective than the spoken word. Effectiveness is improved when the picture, the written word and the spoken word all illustrate an identical point.	16-17
As a rule of thumb, the spoken word in the commercial should be limited to less than half the time of the ad, i.e. 25 seconds of copy in a 60 second spot.	17-18
Young children are more likely to remember concrete examples and specific statements. Older ones are better able to make generalizations.	11-12
The message must speak to viewers personally and show how the product can affect their lives today.	18, 21, 40
Ease of product identification is the objective. There must be a product.	17, 24, 33, 35, 37-38
Ads should not try to change attitudes or behavior. They should concentrate upon reinforcing what is already known and believed, or activate those already predisposed toward the message.	20, 26
Liking is not necessarily a prerequisite for effectiveness. Children don't "like" commercials.	12-14, 18-19
Exaggeration is expected.	19, 22
Claims should be believable.	21-22, 22-23
Begin by using arguments with which the viewer will almost certainly agree, i.e. You want to be strong don't you?	19-22
Use a one sided argument when the viewer is likely to agree with your position.	20-21
Use a two sided argument when the viewer is likely to be initially opposed to your position.	20
Topics with emotional appeal serve well as a structure onto which factual information can be added.	6
Emotional appeals may be more effective than rational appeals.	22

	Text Page
The appeal must be in tune with the major emotion evoked by the product. It may be inappropriate to use humor when discussing a disease.	22
If fear appeal is selected, it should not be strongly aroused.	21-22
Humor should be directed at the product, not the potential user. It should portray having fun with the product, not make fun of the product.	23-24
Variety of format will help increase appeal, avoid alienating those who are "turned off" by a particular appeal and increase the possibility of triggering predisposing attitudes.	7, 26-27
The child is able to distinguish fantasy from reality.	8-14
See discussion of animation as a teaching tool.	27-29
Animation may be more effective for the younger child in our target audience than for the older ones.	3-5
Quiz shows are useful for transmitting hard, objective facts.	30
Learning is aided by active practice.	31-32
When you want the viewer to learn something, build in a reward.	22, 27
See discussion of Gagne's method of teaching concrete concepts.	31-32
Contrast the ad and the program for increased attention.	39-40
The subjective camera angle is best for demonstrations.	31
The news format is believable and of interest to the target age child.	6, 29-30
To the extent that humor acts as a positive reinforcer, it may be more effective than fear.	22
Humor should involve an element of believability.	22-24
Humor that induces a smile or chuckle is more effective than humor that results in a belly laugh.	24

	Text Page
Humor can distract the audience and prevent their rehearsing counter arguments.	25
Recall for product or services is higher for non-humorous messages.	26
Humor is subject to a high rate of failure.	24-26
Personified cartoon animals alone may be more effective than either cartoon people or cartoon animals and people together.	36-37
The well known person is more persuasive in the short term than one not well known, but over time both are equally effective.	34
The product should be the most important factor in selecting the endorser.	33, 35
There are three types of endorser: celebrity, expert and average consumer.	33
Wishful identification operates when the viewer wants to be like the hero or heroine.	32-33
Show kids, rather than adults, teaching specific concepts. If present at all, adults should always be secondary characters.	7, 10-11, 32-33
Show Blacks and other minorities involved in pro-social situations, avoid using them in humorous situations.	5, 11
Endorsers should handle the product.	34
An endorser should project a trustworthy image over all other attributes. Other attributes important for endorsers are: expertise, similarity, attractiveness and likableness.	34
Make it easy for the viewer to identify with the characters and the situation.	5, 7, 23, 32-35, 36-37
Characters should behave in a normal manner in their own environment.	5, 7, 32-33, 35

	Text Page
The target age child's preference for television programming is largely that produced as light adult fare.	32
Singing along helps to create interest in the program.	7, 49
See "Use of Color" for two color effectiveness charts.	38
Inserts may be repeated three times for maximum effectiveness.	40-41
Three messages per break have been shown to be effective.	41
The pattern of breaks should vary.	41
The 80-120 second break has been shown to be effective.	43
Avoid clutter. Clutter usually consists of the closing billboard of one program and the opening credits of another, spot commercials, station identification and PSAs.	39
The first position in a commercial string should contain the most important message. The last position should contain the next most important message.	41-42
Attention to commercials is highest at the beginning of the program.	13
Length of the insert should depend upon the product. A well known one requiring no demonstration is best kept short.	42
The longer (60 second) commercial should use the additional time to create a mood, not to increase the amount of information presented.	17-18, 42-43

Some thoughts on Captioning
(not referenced in the text)

Captions deserve visual prominence. A large (28 scan line) caption with easy to read characters is essential.

Position captions on the screen according to who is speaking. If the voice is off camera, show the words on the top of the screen.

Don't caption more than 120 words (about 15 captions) per minute.

Limit caption lengths to two lines.

Caption in thought units.

Eliminate unnecessary punctuation. (19) (69)

ORIGINAL RESEARCH

CONDUCTED FOR

POWERHOUSE

INTRODUCTION TO POWERHOUSE ORIGINAL RESEARCH

During the period preceding the actual production of the POWERHOUSE pilot, the program went through a series of developmental stages. At each of these stages, decisions on content and form were made, and at each of these stages, formative research clarified the parameters on which these decisions were based.

A series of focus interviews with target aged children established the health knowledge information base that these children would bring to their viewing of POWERHOUSE. Feedback from both adults and children provided information on the strengths and weakness of various approaches to the scripted drama portion of the program, and on the various ideas that were being proposed for program inserts.

Reaction to POWERHOUSE print materials for parents and children, an evaluation of a closed caption version of POWERHOUSE, a field test of a rough cut of the pilot, and finally, the broadcast of the program with a test market evaluation, were all part of the year-long evaluation process.

SECTION I

FOCUS INTERVIEWS AND
FOLLOW-UP FOCUS
QUESTIONNAIRES

Children's thoughts expressed in children's language were needed to establish a realistic overview of the target age child's understanding of and interest in health related issues. To this end, two sets of information gathering were conducted with a nationwide sample of children. The first involved four-hour in-person focus interviews on general nutrition and health habits, maturation, physical conditioning and exercise, and drugs. Four different versions of the follow-up focus questionnaire were administered, each emphasizing one of the major topics covered in the focus interviews. Thus, the personal interviews provided depth of information, the follow-up questionnaires provided the breadth obtainable in a larger sample.

1. Method

Selection of children for the focus interviews was made by asking teachers in six locations nationwide to identify from their classes a "peer opinion leader" in the area of health-related activities. For this purpose, the definition of health included physical and mental health, nutrition, physical fitness, drug abuse, sex education and human biology. An oral questionnaire was administered to each teacher to guide the selection of an opinion leader. The eight children selected were from Washington, D.C.; Fairfax County, Virginia; Los Angeles, California; Lafayette, Indiana; Chevy Chase, Maryland; and Seattle, Washington. An

equal number of boys and girls were selected, ranging in age from nine to twelve. Three of the respondents were Black, the rest were White. All focus interviews were conducted in December, 1979.

The interviews were one-to-one between researcher and respondent. A total of 52 questions were asked, some written in by the child and some completed by the researcher. The first hour of each interview took place over lunch at a restaurant of the child's choosing. This provided a relaxed atmosphere and a natural opportunity for discussion. The remaining hours took place at a nearby quiet setting such as a local public library. Some of the topics included in these interviews were: a description of the child's typical day; knowledge of drugs, body systems and sex; what they did and did not like about themselves; what they felt was good about being a man and being a woman.

In January of 1980, fifty-five children in Silver Spring, Maryland, and Oakland, California and groups of children in membership organizations in Charleston, West Virginia completed the follow-up questionnaires. Regional evaluators contacted principals and youth group leaders by phone, and made arrangements for specific testing dates and times.

The topics that had been covered in the focus interviews were divided into four categories: sex education, drugs, physical education, and general health and nutrition. Thus, there were four

versions of the questionnaire, each with a common beginning (asking about the child's daily activities, eating habits and TV viewing) and common ending (an open-ended request for suggestions pertaining to POWERHOUSE). The children were also asked to name their favorite magazines, music groups and radio stations.

The versions of the questionnaire were randomly distributed among groups. Each child completed only one questionnaire.

2. Highlights From The Focus Interview.

a. Demographics

Eight target aged children, selected as described in the method above, participated in the focus interviews. They were evenly divided between males and females, and included four nine year olds, two ten year olds, one eleven year old and one twelve year old. Four of the children were from the Washington, D.C. metro-area, two from Seattle, Washington, one each from Lafayette, Indiana and Los Angeles, California. Three were Black.

b. Family Background

Five mothers were employed, three full-time. One father was not present. Families appeared to be a range of middle income professional, and ranged in size from one to four children.

c. Membership in Youth Groups

Half of the children belonged to membership organizations.

Three of the girls belonged to 4H, YWCA and Girl Scouts. One boy belonged to the YWCA .

d. Feelings and Aspirations

We asked children to complete three "if" statements. The results are shown below.

If they want to be successful they will:

try, try hard, work hard, concentrate, learn, think and "put the price low."

If they want to show their love, they will:

show others love, help people, be happy, help and be nice, be kind, not be mean and "buy a present."

If they want to take good care of themselves, they will:

eat, sleep and exercise right, not do dangerous things, eat and exercise, brush and floss teeth, not get into accidents, eat right and stay in shape, keep clean and "do everything I need to."

e. Knowledge of Drugs

Children were asked to name drugs they had heard of and where they heard of them first. Twenty-two drugs mentioned two or more times are:

Marijuana or pot	5	aspirin	3
Angel dust	3	nose medicine	2
PCP	2	allergy pills	2
cocaine	2		

Other drugs mentioned once:

opium	penicillin
bongs (paraphernalia)	pills
alcohol	cough medicine
dope	"nervous pills"
snuff	liquid cold medicine
LSD	sugar cube vaccine
	vitamins

Parents and TV were most frequently the places respondents first heard of the drug they mentioned.

f. Amount of Sex Information

A list of "statements about relationships between men and women" was shown to the children. They were asked to indicate how much information they felt they had on each subject. On various levels of sexual activity (hugging, kissing, showing feelings toward opposite sex and "where babies come from"), most respondents felt they "knew enough." This is distinct from "know a lot" which was defined as "knowing enough to tell your friends about it."

Children were also asked what changes they may expect in their bodies over the next few years. Most cited information that indicated they possess at least a vague understanding of the physical developments of adolescence. Comments were of three varieties: physical, social and emotional. Table 1 below shows these comments. Finally, all children, regardless of sex, were asked to list what they thought was "good about being a man" and "good about being a woman." Again, three broad categories of comments emerged: social, appearance and physical. These are shown in Table 2 below.

TABLE 1
Anticipated Changes During Adolescence

	Physical	Social	Emotional
Female Responses	Get bigger, start menstrual cycle		
	Get taller, strong	Harder work	You feel more being needed
	Grow, get more like a woman		Change ways, feel different
Male Responses	Will get hairy in certain places. Can help a woman have a baby. My body will mature. I will grow more		
	More hair. You get bigger, get stronger		You mature more than you are now
	Get strong, get hair grow bigger	Be responsible	Understand more
	Hands and feet bigger, more coordinated. Face will look different. Punch harder. Older		
	Grow taller, stronger. Get different looks a little bit.	Can drive	Get smarter

TABLE 2

What is good about being a woman?

	Social	Appearance	Physical
Female Responses	Have children	Get to wear nice clothes. Get to have long hair	More flexible bodies like in gym
			Don't have to play football
Male Responses	Don't have to work if married	Can put on make-up. Make yourself look pretty	Don't have to take punishment
	Things men can't do		Girl's baseball
	Nothing		Could go to the YMCA

What is good about being a man?

Female Responses	In earlier times men had more rights, women had rights like a child. Its more equal now except in religious countries. In some parts of the US women are still discriminated...because they are different		
		Nice clothes	Strong, like father
	Could run for President. More chances to do things		You can be strong. You can play football You can be a jockey. You can be tough
			Can play major league baseball More sports

TABLE 2 cont'd
What is good about being a man?

	Social	Appearance	Physical
Male Responses	Being boss of family	Don't have to wear dresses and skirts	Compete in sports. Can take punishment
	Can do things girls can't (read and write faster)		Be on certain teams. Men's football, volleyball
	At least I'm not a girl!		Boys get more chances in sports
			Stronger, taller, more sports to take part in

g. Participation In Sports

Three of the boys and two girls play team sports. Soccer and track are played by both sexes. Bicycling is cited all but once as the most frequent physical activity, followed by jogging or running.

h. Illness

If they feel sick, six turn to mother. This is despite the fact that five of the six mothers work. All illnesses mentioned are normal childhood diseases and accidents. Two children have allergies.

Most know what they would do if they felt sick and were alone: go to bed or lie down. Only two say they would take aspirin. One of those says he would also "take a cherry flavored medicine."

i. Eating Habits

Only one child thinks he has control over what he eats during the time he is in school. Unfortunately he is also the only child to omit a good source of protein from his dinner menu. This took place after a lunch of a hot dog, french fries and a coke. His dinner menu consists of "lima beans, corn, vegetables and water."

When asked to select a place for lunch, McDonalds was selected three times, by girls. The remaining girl picked a Chinese restaurant. The boys made a variety of selections: Burger King, Red Robin (a burger chain a cut above McDonalds'), Hamburger Hamlet (similar to Red Robin) and Red Lobster.

All but one respondent knows what the basic four food groups are. All but one of those learned it in school in first, second or third grade.

Mother buys and cooks the food regardless of her working status. All children accompany mother, and in two cases father too, to the market and get to pick some foods, mostly dessert.

3. Highlights from Follow-Up Questioning

a. Demographics

Fifty-five target aged children completed four different versions of the follow-up questionnaire as described in the method section above. Thirty-four were males and 21 were females. Fourteen were ten years old, 32 were eleven and nine were twelve. Twenty-one of the children were from the Maryland suburban area, 21 from Oakland,

California and 13 from Charleston, West Virginia. No racial demographics were solicited, but just under a third were Black.

b. Family Background

In Maryland, 13 of the 21 mothers work outside the home. The fathers are all employed. Families appear to be a range of middle income professional. In California, 12 of the 21 mothers work outside the home. One father is unemployed and one is deceased; the other fathers work. Twelve respondents said "don't know" or did not answer all or part of the question about parental employment. Families seem to be blue collar. In West Virginia, six of the 13 mothers work outside the home, one father is retired and one not present. Families seem to be blue collar with three exceptions: bacteriologist, CPA and Boy Scout executive.

c. Membership In Youth Groups

In Maryland, 13 respondents belong to membership organizations, about evenly divided among males and females. Boy and Girl Scouts are the most frequently mentioned, then 4-H. Pioneer Girls and Trailblazers are each mentioned once. In California, all 21 respondents belong to membership organizations. Thirteen belong to Boy Scouts, two Explorer Scouts, four belong to Girl Scouts and two to Campfire Girls. Two girls also belong to the church choir. In West Virginia, all 13 respondents belong to Boy Scouts, one also belongs to Methodist Youth Fellowship.

d. Feelings and Aspirations

Children were asked to complete four "if" statements, three of which were the same as those asked during the focus interviews. The results are shown below.

If they want to be successful, they will:

practice things I'm good at, work hard in school get A's. Keep going to school.... can get an education, be good, play, practice and have confidence. Get lucky, win a prize, go to college, I'll be smart, study. I will have the knowledge.

If they want to show their love, they will:

be kind, comb my hair, help my friends, be good show it, I will be a good man, love my mother, father, brother and others. Kiss that person, she will like me better. Be kind, talk to him, be nice, act polite.

If they want to take good care of themselves, they will:

exercise, diet, sleep, eat right, have good health habits, keep clean, take vitamins, eat three meals a day, don't stay up late. Be strong, be good, stay healthy and eat the right foods, take a bath, put on good clothing.

If they want to feel safe, they will:

stay out of scary places, lock doors at night, wear things according to the weather, I won't get sick, be careful. I won't get hurt, not play dangerously. Keep a gun, I can protect myself. Go and hide, not talk to strangers. I won't get kidnapped, defend myself, keep a gun with me.

Children were asked to list what they like and do not like about themselves. Both boys and girls mentioned "likes" such as being nice, getting along, and liking friends and family.

Boys made numerous mentions that relate to physical characteris-

tics. They like swimming, healthy arms, strength and big fists. One girl mentioned her "dancing ability."

Boys also made more mentions of "likes" that concern the intellect: "proud of myself," "good in school" and "kind of smart."

Most dislikes are of a social nature. A boy mentioned hating his sister; another dislikes himself when he doesn't obey. Girls mentioned disliking themselves when "I am sometimes bad," "don't obey" and "get into fights."

e. Knowledge of Drugs

Children were asked to name drugs they had heard of and where they heard of them first. The drugs mentioned two or more times are shown below with the frequency cited. Some are different names for the same thing.

marijuana	10	beer	3
heroin	7	aspirin	3
opium	5	angel dust	3
cocaine	5	dope	2
PCP	4	sherm	2
weed	4	ripple	2
speed	4	LSD	2
alcohol	3	pot	2

Other drugs mentioned once are:

uppers	synthetics
narcotics	redlines
Vicks 44	Pepto Bismol
short aspirin	Robitussen
wine	castor oil
Tylenol	Anacin
Alka Seltzer	cough drops
5 star	

The sources of drug information vary somewhat among the three groups. Teachers are the primary sources of drug information for the Maryland children, followed by TV, reading, and parents. In both California and West Virginia, TV is the prime source of information. Friends and parents are tied as secondary sources of information in California, while teachers are second in West Virginia and friends are third.

f. Amount of Sex Information

A list of "statements about relationships between men and women," was shown to the children. They were asked to indicate how much information they had on each subject. On various levels of sexual activity (hugging, kissing, showing feelings toward the opposite sex), most respondents feel they "know enough." This is distinct from "knowing a lot" which was defined as "knowing enough to tell your friends about it." Two Maryland girls feel they need to know more about pregnancy and a Maryland male and female feel they need to know more about marriage and divorce. A West Virginia male wanted to know more about all aspects of sexuality. In California, this and other questions on sex were removed from the questionnaire because there was no parental permission for "sex education" in the school.

Children in Maryland and West Virginia were also asked "What is good about being a woman?" and "What is good about being a man?"

The results are shown in Table 3 below.

TABLE 3

What is good about being a woman?

	Social	Appearance	Physical
Female Responses	So many clubs Women are treated a little more respectfully	Variety of clothes You can carry a purse and wear anything You can wear high heeled shoes and dresses	Get to clean house
Male Responses	Leaning over a picket fence and gossiping all day Giggling Stay home and relax		Get to do work around the house

What is good about being a man?

Female Responses	Can spend more money on the house		Being stronger Get to do more things (sports) Good runner and strong
Male Responses	Clubs, Boy Scouts Get jobs easy Paid better Do what you want, get a job, drive a car		Hunting, archery Strong

g. Sports and Recreation

Children were asked how often they enjoyed a variety of activities, with choices ranging from "anytime I can" to "hardly ever." The five most favored activities in a list of eleven choices are: visit friends, watch TV, play outdoors, go to school and play on sports teams. The least often enjoyed activities are playing indoors and talking on the telephone. A number of activities seem to be enjoyed very often by close to half of the sample, and enjoyed very seldom by the rest. These activities, with less than ten points between "enjoy often" and "enjoy seldom" are: visit relatives, go to the movies, read, listen to records and listen to the radio.

Respondents were given the opportunity to mention any other frequently enjoyed activities. The activities mentioned are: model building, dancing, modeling, playing with dog, sewing, growing plants, cooking, cleaning, playing cards, eating ice cream, helping Mom and fixing things. Sports mentioned are: skating, biking, football, track, bowling, basketball and catch.

h. Health, Fitness and Illness

Children were asked what kinds of things they would like to know about their health. Most of the answers are fairly general: "What do I need to do to keep healthy?" or "What makes people sick?" Specific concerns mentioned involve smoking, brain damage, drugs, drinking, sex, disease, "What I look like inside?" and desire for information on various body parts (heart, eyes, arms and legs).

i. Eating Habits

Most of the sample eat breakfast regularly. The children seem to have a good understanding of what constitutes a well-balanced meal. Their reported breakfast menus are well-balanced, although a few respondents mention unusual breakfast food such as pineapple, cake and pizza.

The mother in the family is the usual purchaser and preparer of food. The majority of the children accompany their mother when she shops, but assist in the selection of snacks, cereal and desert only.

j. Media Preferences

An overwhelming majority of respondents listens to records and radio. Almost all radio stations mentioned as favorites have a "Top 40" format. A group called "The Sugar Hill Gang" was the number one recording artist with both the Maryland and California respondents. The West Virginia favorite was the rock group "Kiss." Although a number of recording groups was mentioned by the respondents, it is quite clear that there is a strong, if temporary, favorite that prevails in each area.

A specific question concerning the believability of various television formats and/or shows was asked. Children were given a nutrition statement and asked on how many of the twenty-three TV shows listed they would find the statement believable. Respondents could answer with "I'd believe it", "I wouldn't believe it", "maybe I'd believe", "I'm not sure", or "never heard of that show."

The News was the most believable show. The Dukes of Hazzard was the second most believable, followed closely by Big Blue Marble, Today Show, Afternoon Specials, Mork and Mindy, and Little House on the Prairie. Only ten children said that they would believe the nutrition statement if it appeared in a commercial. This is in line with current research on children's belief in advertising. (See page 13 of the Writer's Notebook).

It is a little more difficult to explain the high believability of shows like the Dukes of Hazzard. Apparently believability and "liking" (Dukes of Hazzard is one of the top rated shows for this age group, see page 3 of the Writer's Notebook) are closely identified in the minds of these children.

SECTION II

TREATMENT EVALUATION

Treatment evaluation provided an opportunity to assess the reactions of both target age children and teaching professionals to three different script treatments. These narrative versions of scripts dealt with the underlying theme, of taking carefully planned risks, in quite different ways. A brief description of each follows:

> Treatment #1 is titled "Something Ventured." One of the POWERHOUSE gang, Bobby, takes a box from a group of tough guys whose respect and friendship he seeks. It turns out that this favor is ill-advised; the box contains stolen loot. The POWERHOUSE gang tries to solve the burglary and prove Bobby's innocence.
>
> Treatment #2 is called "Running." POWERHOUSE badly needs financial assistance for new equipment. The POWERHOUSE gang feels the way to get the equipment is to gain recognition for POWERHOUSE by winning the city-wide community center athletic meet. Kevin, suffering from a knee injury, risks permanent damage to win the meet. The other POWERHOUSE kids find out, and try to discourage his foolhardiness. A surprise move on the part of one of the other POWERHOUSE kids saves the day.
>
> Treatment #3 is "Chance Alley." Bobby's cousin, Cosgrove Smith, is vandalizing POWERHOUSE, and it is in danger of closing. Bobby, a POWERHOUSE regular, suspects Smith. He wants to protect his family, but loyalty to POWERHOUSE wins out. The POWERHOUSE gang catches Smith trying to set a fire in POWERHOUSE, and he is sent to a mental institution.

At the same time script treatments were tested, pictures and brief character descriptions of potential series regulars were also evaluated by the target audience. These pictures were displayed during the reading of treatments.

1. Method

a. Site and Sample Selection

Five areas, representing major geographic regions of the country, were selected to test the three treatments. Five classrooms

of children, each from a different region and representing a range of ages, heard and responded to each treatment.

Participating schools were selected by APS regional evaluators in Washington state, West Virginia, Indiana, California and the District of Columbia.

b. Design of Instruments

A questionnaire, developed in consultation with EFC staff, was designed to measure the appeal of each story line and the characters, as well as to find out children's attitudes on risk taking behavior after hearing the story.

The questionnaire was pre-tested on a classroom of third grade urban children. It was then revised in order to make it simple enough for the youngest children in the sample to understand easily.

The questionnaire was comprised largely of true-false and miltiple choice questions. A few questions were in an open-ended format. A separate Teacher's Analysis questionnaire asked the teachers' opinion of the characters and content of the story, and solicited their suggestions for improvement.

c. Site Management

Testing sessions were held during regularly scheduled classroom periods. Photographs of the main characters in the story were taped to the blackboard for the children to observe while the story

was being read to them. The story was read by the regional evaluator, and in each instance took about one half hour. Questionnaires were then passed out. Brief demographic data were filled in. The evaluator then read aloud each question, and multiple choice answers where applicable. It took the children about twenty minutes to complete the questionnaire. Teachers filled out the Teacher Analysis questionnaire during the testing session.

After completion of data gathering, regional evaluators wrote a narrative report of the evaluation procedure, their perception of the treatments, and their observations of children's reactions during the session.

3. Results

a. Demographics

Respondents to all treatments were divided evenly between males. and females. The group that heard "Something Ventured" was 55% Black and 45% White. The sample was drawn from grades three through seven. "Running" was heard by a group that was 27% Black, 67% White and 6% other. Children were in grades four through six. The "Chance Alley" group was 24% Black, 67% White and 9% other. These were in grades four through seven.

b. Ratings

Respondents were shown a five point Likert Scale and asked to rate the show as a whole. The scale had alternatives ranging from

great (five points) to terrible (one point).

The overall ratings were:

Something Ventured	3.63
Running	3.55
Chance Alley	3.31

Over 90% of both males and females said they liked the stories. The characters were also well liked, although a relatively low 88% of the boys said they liked the characters in "Chance Alley." When asked which they preferred, the characters or the story, a majority picked the story. Over 90% of the respondents said they would watch a television show about the story they heard with the following exceptions: Eighty-six percent of the males would watch "Running" and 82% of the females would watch "Chance Alley."

In sum, although all the script treatments were rated highly, "Something Ventured" was the most consistent of the three.

c. Theme Evaluation

One purpose of the script evaluation was to ascertain how clearly the concept of POWERHOUSE as a place was perceived by the children. The children were asked "Is the POWERHOUSE a real place?" Between 57% and 80% of them felt it was a real place. Given the tendency toward positive responses in this type of evaluation, this was considered to be a low level of understanding of the concept.

Understanding of the major theme, taking risks after thinking what might happen to you or others, was tested in several questions. Agreement that this theme was what the stories were mostly

about was also low:

Running	71%
Something Ventured	67.5%
Chance Alley	55%

Children were asked "Do you ever worry about taking risks like those in the story?" Female response to all three scripts on this question was relatively even. Between 72% and 77% did worry about taking risks like those in the story. Males felt similarly about the risks in "Running" but indicated less identification with the risks in other scripts (47% in "Something Ventured" and 35% in "Chance Alley").

After hearing the scripts, agreement with the statement that "a risk was something dangerous" was very high, between 92% and 96%. Respondents were also asked to agree or disagree with the statement, "A risk was a challenge or adventure." Highest agreement came from those who heard "Something Ventured" (95%) and lowest agreement came from the "Chance Alley" group (76%). There was generally low agreement from all groups for the following statements: "A risk was done on a dare, a risk was fun to take, and a risk was always taken."

The three questions that assume the most importance in this section are (1) the degree to which the treatments conveyed the intended interpretation of risk taking as a challenging process requiring careful preparation, (2) the degree to which children could relate risk taking in the story to the process of meeting challenges in their own experience, and (3) the degree to which the concept of POWERHOUSE as a realistic place is conveyed.

The risk taking theme was the least successful in "Chance Alley." As far as relating the risk taking in the story to real life experience, children who heard "Running" responded more positively than the others. Males who heard "Something Ventured" and "Chance Alley" showed a very low identification with the risks in these stories. Finally, of the three treatments, "Running" most powerfully portrayed the POWERHOUSE as a real place.

Upon initial examination of the data on script treatments, the POWERHOUSE producers felt that the two most viable scripts were "Something Ventured" and "Running." Some further analysis was done comparing the reaction to these two stories. Children had been given an opportunity to make open-ended comments about the characters in each story, and to tell why they felt the show was going to be called POWERHOUSE. This process yielded large amounts of qualitative data in children's language. These statements were then given a rating of either positive (favorable toward the show or character), negative (unfavorable toward the show or character), or neutral. Of the total comments made, 58% of them were directed toward "Something Ventured."

"Something Ventured" shows a slightly higher proportion of positive responses, but this measure does not show a clear cut difference between the two treatments.

The decision to produce "Something Ventured" as the pilot was based upon the POWERHOUSE Executive Committee's recommendation that

"Something Ventured" would fit the pilot format more closely. "Running" may be reconsidered as another theme in the series.

d. Character Evaluation

Children were asked to name their favorite of the main characters, on the basis of his or her role in the story and a still black and white photograph. The boys' favorite character in all three treatments was Kevin, the Black leader of the POWERHOUSE gang. The girls picked Bizzy in "Something Ventured" and "Chance Alley." Bizzy is an overly curious, busy body, full of fun and charm. Jennifer and Kevin were tied for favorite character in the "Running" group. Jennifer plays a larger role in this script than the other two. Like Kevin, she is a mature, attractive leader.

Bobby is also named frequently as a favorite character in "Running" and "Chance Alley." In both stories he is a strong, tough character caught in a dilemma, partially of his own making. A lot of the interest of both these stories centers on him.

Clearly, preference for character is strongly influenced by sex. Boys like male characters, girls the female roles. However, Kevin, a very strong, sympathetic character is also a favorite with the girls.

Children were asked if they knew anyone in real life like each of the main characters. The most positive response to this question is shown toward the characters in "Something Ventured". Kevin and

Jennifer are the characters in all three treatments that the most respondents know someone like. Brenda is also a "high reality" character.

A list of words that might apply to each character was shown to the children. They were asked to check the three words that best describe the character. Responses show that the characters, as conceived by the treatment writers, were clearly and accurately perceived by children in all three test groups.

e. Adult Analysis of Script Treatments

Teachers who remained in the classroom while the treatments were read were asked to provide comments on the various main characters and on the story.

Responses were generally positive. All teachers felt the story communicated the main risk-taking message. Reservations about characters were strongest for Brenda and Al in "Running." Several teachers felt Brenda's character was too weak and undefined, and that Al does not come across as "a strong friend" to POWERHOUSE. Another commented that the children do not seem to like Al as he appears in "Something Ventured."

One teacher's response to the young characters in "Running" was that they are "sugar coated" - not realistic. Criticisms of some young characters in the other scripts were generally that their role in the story does not allow their personality to be well defined. This applies to Kevin and Jennifer in "Chance Alley," and Bobby in

"Something Ventured."

When teachers were asked to give suggestions for improving the treatments, the most substantative criticisms come in response to "Chance Alley." One teacher felt that the ending was abrupt, and that the children would not comprehend all that was involved in committing someone to a mental institution. Another felt that the risks the children take for the center would be more believable if POWERHOUSE itself were depicted more clearly. Another teacher felt that the "Running" treatment gets off to a slow start. However, all but one teacher, who didn't like "Something Ventured," felt that the scripts were basically sound. Criticisms mostly involved emphasis and detail.

The project regional researchers who collected on-site data, were then asked to make a script and character analysis for the two treatments that producers felt were most promising for the pilot, "Something Ventured" and "Running." The researchers' comments were based on their professional experience and on the reactions they observed during administration of the evaluation questionnaires.

Again, the overall feeling about the treatments was positive. There is general consensus that it was important to make Lolo a more likeable character (not too cautious and too brainy), and that Al was not perceived in a positive way by the children because of his authoritarianism and lack of warmth. The need for supportive, guiding adult roles was strongly recommended.

One researcher saw the need to focus the risk-taking theme in "Something Ventured."

> Bobby is supposed to be the focus, and the others urge him to take a chance. I find it confusing as to exactly what they're urging him to do - go to the police, confront Keeno or what? ...

Another major criticism, this time directed at "Running," was that some of the risk taking involves illegal and dangerous acts. Although these activities are reprimanded in the story, there are no serious consequences for these dangerous acts.

In general, all researchers found positive and negative features in both treatments. Only one researcher expressed a strong script preference. The West Virginia researcher felt that "Running" was a "richer" and more "provocative" story, allowing for generation and discussion of a greater number of important issues.

The informed opinions of both the teachers and researchers provided additional viewpoints and specific recommendations to the project producers. This was a particularly useful process to go through, because the relative merits and demerits of the scripts were subtle. The selection to be made did not involve a clear and obvious first choice.

SECTION III

STORYBOARD & CHARACTER EVALUATION

A. STORYBOARD EVALUATION

The storyboard evaluation provided a method to present a variety of ideas for POWERHOUSE Program Inserts (PPIs) to a cross section of the target audience. Although the ideas were in rough form (several slides and an audiotape) the feeling, tone, concept and message of the insert were clearly conveyed to the target audience.

The PPIs tested were:

Daring Don - Daring, Don a swimmer, gets into trouble because he doesn't "look before he leaps."

Merit Award - Jose Garcia wins a merit award for "race walking," an off beat way to keep fit.

Celebrity Organ - An animated "What's My Line" format with a pair of celebrity lungs as the guest.

Think Before You Act - Henry Madsen and Vicky Vanderkloot demonstrated the safety precautions stunt drivers take.

Powerfoods - A "nice" kid mixes with a motorcycle gang and comes up a winner because he eats Powerfoods (raisins, nuts, bran muffins).

Ask, Answer, Act - A ventriloquist and his puppet discuss the patient's responsibility when visiting the doctor.

I Want To Know - Dr. Sidney Greenspan shows how biofeedback can reduce tension.

A storyboard of the program's standard opening sequence was also tested.

Reaction to these storyboards enabled producers to choose the most viable ideas in terms of both appeal and teaching value for the pilot.

1. Method

Site and Sample Selection - The sites, representing major U.S. geographic regions were the same as those used for the treatment evaluations. (See page 68 above.)

To obtain the sample, a grade level assignment was made for each storyboard in each site, so that each insert was seen by children of a variety of age levels within the target age range.

Most of the sample was drawn from elementary school classes within the assigned regions. Evaluators selected the particular schools on the basis of representation and willingness to participate. Principals were contacted by telephone and the project described. A fact sheet was sent to those who expressed interest. Then a firm date and time for the evaluation was set with those who agreed to participate.

The sample in West Virginia and part of the Seattle sample was obtained from 4-H groups (W. Va.) and neighborhood groups (Seattle).

2. Design of Instruments

Each PPI questionnaire consisted of several items that measured understanding of the primary instructional concept, asked for ideas for future segments and measured the appeal of the insert. Because of the format and content differences among inserts, it was not possible to ask all the same questions for each PPI. There were several questions in common, however, notably the Likert Scale which measured

appeal. This "smiley face" scale was used repeatedly throughout the evaluation.

A Teacher Analysis questionnaire was also devised, asking if the teacher felt the main message of the insert was understood by her students, which aspects of the insert were appealing and which were not, and requesting ideas for future inserts.

Regional evaluators also filled out the above questionnaire, as well as a Researcher's Group Report, describing the evaluation procedure and setting.

3. Evaluation Management

Most storyboards were evaluated in pairs. Regional evaluators first read an introductory statement about the value of the children's opinions in making a good television program. Each storyboard, which consisted of a simultaneously presented audio tape and series of color slides, was shown to the children. Evaluators then read the questionnaire to the children, leaving time between each question for the children to mark their answers. During this time, teachers filled out the Teacher Analysis forms. Evaluators filled out their analysis form after completion of the testing session. In general, testing sessions lasted about one half hour.

4. Results

a. Demographics

Respondents were within the target age range of 8 to 12 years.

they were approximately evenly divided between males and females. Between 96 and 118 children saw each PPI; one hundred forty-two children saw the Standard Open. Whites, Blacks, Hispanics and Asians were included in the sample.

b. Ratings

"Think Before You Act" was the insert highest in overall appeal as tested on the Likert Scale. "Celebrity Organ" was also very popular. Table 4 below gives a comparison of the Likert ratings for the seven PPIs and for the Standard Open.

TABLE 4
Storyboard Likert Scale Ratings

Storyboard	Rating
Think Before You Act	4.03
Celebrity Organ	3.81
Powerfoods	3.75
Standard Open	3.68
Ask, Answer, Act	3.63
Merit Award	3.43
Daring Don	2.99
I Want To Know	2.90

Highest Possible 5

c. Theme Evaluation

One of the important functions of the storyboard evaluations was to find out how well the main theme of each PPI was understood by the children. This question was posed in different ways. For example, the children who viewed the "Daring Don" insert were asked what Don did right and what he did wrong. Sixty-five percent of the

respondents were able to articulate the main theme, and a large proportion of the remaining responses indicated an understanding of part of the message.

In "Celebrity Organ," the question on theme asked, "What advice does the celebrity organ give about taking care of your lungs?" Children seemed to miss the general message of lung care; instead they responded with "don't smoke" or "have good posture" (only small parts of the message) and "don't sleep underwater" (one of the lung's little jokes.)

In "Think Before You Act" and "Ask, Answer, Act," children were asked why they thought the feature was titled as it was. Most of the responses to "Think Before You Act" showed a good understanding of the message (think things through before you act). Although about one half of the answers in the "Ask, Answer, Act" group showed understanding of the use of the title, the most frequent single response was "don't know" (25 cites).

On the other hand, in response to "What information would a POWERHOUSE who was sick tell a doctor," most of the answers showed an understanding of the kinds of information necessary to tell the doctor during an examination.

These data indicate that, although a large number of the children may not have understood the generic message "Ask, Answer, Act," they did understand the specific message of giving complete information to the doctor and following his other instructions.

Viewers of "Powerfoods" understood quite well the importance of a good diet and were able to give examples of nutritious foods.

In "I Want To Know," over half the respondents expressed an understanding of the particular problem being addressed (nervousness), but didn't clearly understand how biofeedback, the technique discussed in the insert, could cope with this condition.

The theme expressed in "Merit Award" was of a different nature than the other program inserts. The idea of the storyboard was to introduce the children to the idea of a Merit Award that they or someone they know might win. When asked "Could you win a Merit Award?" 34% of the respondents said yes, 6% said no, and 60% said they didn't know.

The Standard Open consisted of the POWERHOUSE theme song and a series of slides illustrating the concept of children coming together at a clubhouse to form a group. The major focus of this evaluation was to test the opening's ability to identify the program (98% of the respondents correctly named the show), the nature of the POWERHOUSE (60% were able to identify the focus of the show as a community center) and the appeal of the song (rated 3.91 out of a possible five on the Likert Scale).

An underlying theme of POWERHOUSE is that every individual has a store of resources within his/herself. This is expressed in the theme song as "having a POWERHOUSE deep down inside." When asked what that phrase meant, 62% of the children gave self-directed responses, such as "energy deep inside you," "you can

be your own self" and "you have a lot of power in your ideas."

d. Commitment to Viewing

Respondents were asked, "If (insert name) were a regular part of a television show, do you think you would watch it?"

TABLE 5
Commitment To Regular Viewing

Insert Name	Would You Watch It		
	Yes	May Be	Not At All
I Want To Know	24%	40%	36%
Powerfoods	34%	59%	7%
Ask, Answer, Act	31%	55%	14%
Think Before You Act	38%	50%	12%

This type of question was not asked for the "Merit Award" and "Daring Don." "Celebrity Organ" respondents were asked, "Would you like to see more "Celebrity Organ" commercials that show what other parts of the body do?" Fifty-six percent said "yes," 39% said maybe," and 5% said "no."

For the "Standard Open," two questions were asked. "Would you watch this TV show with friends?" Seventy-one percent said "yes." Secondly, "If you saw this as the standard opening of a TV show, do you think you would watch the rest of the show?" Eighty-two percent said "yes" and 18% said "no."

e. Ideas For Future Segments

Storyboards were, in general, conceived as part of a series. "Celebrity Organ," for instance, was intended to present segments

featuring different parts of the body. Children were given a list from which they were asked to choose the two subjects they would be most interested in seeing in the future. The first choice was the heart, followed by the brain and muscles.

Ideas for future "I Want To Know" segments were obtained from an open-ended question asking for topics they would like to see discussed. The most frequent answers were:

- what to do about problems with friends;
- getting along;
- how to go on a diet, keep slim, get in shape;
- growing up; and
- health

Children in the "Think Before You Act" group were asked what kinds of activities require thought before action. Most cited answers in order of frequency were:

- playing with fire/matches/burning trash;
- jumping off high places;
- taking drugs/drinking/smoking;
- swimming/diving/sky diving;
- hiking, camping;
- playing with knives or gun;
- driving;
- playing/using tools; and
- bike riding/racing

Children's answers to "What other things might Daring Don dare to do" fell into four main categories as follows:

29% Jump answers such as jump off bridge

23% Answers relating to any swimming activity

20% Silly answers such as stick head in lion's/bull's mouth or eat worms

28% Real possibilities for future segments. Such as:

•Ride a bike on a busy street/fast;
•Save a person/animal;
•Go somewhere dangerous (high voltage);
•Run across/play in street;
•Skate on thin ice/skateboard;
•Water ski;
•Climb very high in a tree; and
•Drive a car without a license

f. Adult Analysis

Both teacher and researchers provided comments on each of the program inserts. A summary of their reactions shows a generally positive feeling about what they saw. Specific criticisms and praises are shown below.

I Want To Know - All nine respondents felt it was a viable idea. Particularly attractive elements were the concept of having children ask questions about themselves and their concerns, and encouraging viewers to write in with their own ideas. On the negative side, it was felt that the idea of biofeedback was too complicated for the lower range of the target audience. Two respondents felt the message of the PPI was understood, five said it was not, and two were not sure. Other topics suggested for future inserts in this series were: sex information, peer pressure, astronomy, nature, accidents and illness, chemotherapy, surgery, social behavior and drugs.

Think Before You Act - All eight respondents thought the idea of the insert was a good one. However, two respondents had reservations about the stunts performed in the sequence; they felt that children might try to imitate some dangerous tricks.

Four of the respondents felt the "Think Before You Act" message was clearly understood. Other subjects mentioned for future inserts were: the risk of following the lead of your peers, bicycle safety, electricity, respect for property and people, and traffic safety.

Powerfoods - Eight of nine respondents felt that a "Powerfoods" feature would be interesting to children. All felt the insert message was understood. The use of humor was felt to be a good way to get this topic across. Some other "Powerfoods" topics suggested were: care of the body, medication, smoking, tooth decay, cooking, vegetarianism, snacks, and growing one's own food.

Ask, Answer, Act - All respondents felt the insert idea was a good one, and that the message was understood. Some other topics suggested were: feelings, getting along with parents, safety, drugs, alcohol, self concept and self control.

Celebrity Organ - All eight respondents felt a character like the Celebrity Lung was viable. Most thought the appearance and manner of the animated figure was appealing. Two respondents thought the lungs were not realistic enough. Six respondents felt the message was well understood, and noted bodily responses such as pulling up into good posture, and exaggerated breathing.

Merit Award - All adult respondents thought the idea of a merit award was a viable one. The use of "real" children as recipients was cited as an important aspect, and ways to involve

the audience as much as possible were seen as crucial to the segments' success. All but two respondents felt the award should be tangible: a cup, certificate, medal or tee-shirt. Seven respondents felt the children understood the purpose of the merit award as it was described in the slide/tape. Other activities or abilities that were mentioned as deserving of a merit award were: poetry, artwork, creative writing, sports and community contributions.

Daring Don - Nine of the eleven respondents thought a character like Daring Don was viable. Attractive attributes of the character were his vulnerability and foolishness. There was some concern that he might be too dumb or simple for the older children in the target age range. All but two respondents felt the message was well understood. Other suggested "daring" adventures were: use of alcohol and drugs; use of bikes, skateboards, sleds, weapons; sports and cheating.

Standard Open - Six of eleven respondents felt the segment illustrated that the program will take place in an urban community center. All but one felt the children moved in time with the music, and otherwise indicated their enjoyment. All respondents felt the open was appropriate for the age group, but only six felt the key phrase, having a "POWERHOUSE deep down inside" was understood by the children.

B. Character Evaluation

1. Method

In order to ascertain the target audience's response to the main characters, an additional measure of their perceptions was made, independent of the treatment evaluation described in Section II above.

A three to five page description of each of the seven main characters was read to children in classrooms in the five geographic regions. A picture of each of the characters was taped to the blackboard during this reading. Children then rated the characters, and responded to several other questions about them, i.e. what do you remember best about the characters, do you know anyone like the character, and what words best describe the character.

An adult analysis (teachers and researchers) of the characters, asked opinions on the realism and appropriateness of the characters, and also asked for suggestions for improvement.

2. Results

a. Demographics

Seventy boys and 72 girls between the ages of 8 and 12 responded to questions about the characters. Blacks, Hispanics and Asians were included in the sample.

b. Ratings

Characters were rated on a Likert Scale where a rating of five

was "great" and a rating of one was "terrible." The results are shown in Table 6 below.

TABLE 6
Character Sketches
Overall Rating of Character

Jennifer	4.22
Kevin	4.02
Brenda	3.86
Al	3.63
Bizzy	3.49
Lolo	3.39
Bobby	3.29

Highest Possible 5

c. Adult Analysis

All six teachers and four of the five researchers felt that the children got a good sense of the characters from the sketches that were read. One researcher thought the development of Detective Al's character was confusing.

All teachers and three of the five researchers felt the mix of characters was realistic. Reservations expressed were that the characterisation of Al as a "tough cop but nice guy" and of Kevin as the "Black athletic star" seemed stereotypic. One researcher felt that there should be more Black characters in an inner city community center.

C. Curriculum Review Board Review of PPIs

1. Method

The EFC staff felt the need for additional adult reaction to

the proposed program inserts. Members of the Curriculum Review Board were asked to provide this information. Scripts of five of the seven PPIs that had been field tested ("Daring Don" and "Merit Award" were in the process of revision.) plus two additional inserts that had been developed later were sent to the Board Members. These inserts were:

Growing Up - A young girl playing volleyball on the beach is self-conscious about her developing body.

Play Your Body - A young man, "Body Sounder," plays his body.

2. Results

In general, the CRB'S review of the five field tested PPIs supported the conclusions gleened from the field testing.

Messages were felt to be appropriate for the target age audience. Two Board Members thought that "Celebrity Organ" and "Ask, Answer, Act" were a little young for the target age. The primary messages were clear in most cases. Although reactions were generally positive, there were criticisms. They centered on the degree to which the Board Members thought intended humor was successful ("Ask, Answer, Act," "Celebrity Organ"), the need for a larger amount of useful information ("Celebrity Organ"), and possible misleading effects ("Powerfoods," "Think Before You Act").

On the two new PPIs, "Growing Up" was considered effective in presenting the issue of puberty and the development of the female

body. Mike Lenigan's (Director Youth Services, Red Cross) comment is illustrative of the general concensus about "Growing Up:"

> It presents (the) real situation of discomfort and physical change in a possible setting with which we can all identify. Its natural for a girl to look for advice from (an) older youth.

"Play Your Body" on the other hand, was not considered message laden. "I don't know" was the most frequent response from CRB members responding to the question requesting their conception of the primary message.

SECTION IV

PRINT MATERIALS EVALUATION

Part of the process of getting children actively involved in POWERHOUSE was the design of print materials that reinforce and expand the content in the POWERHOUSE television series. The Agency for Instructional Television was responsible for the development of the materials. Two different guides were prepared for evaluation. A brief description of each is provided below:

1. The "POWERHOUSE Activity Book" was a spiral bound booklet of twelve short articles and puzzles for children. Included were:

- Harry Houdini - Master of Magic - Houdini uses care and planning before doing his dangerous feats.
- Snack Search - A word find puzzle of nutritious snacks.
- The Windmill - An exercise to do while you're watching TV.
- The Case of the Arduous Alibi - Follow the clues to solve the mystery. The clues involve physical exercise.
- Do These Things and You'll Be Past Tense - Relaxation tips and a fill-in-the blanks quiz.
- Getting Around with You - Power - Bicycle safety information and check list.
- Graham Cracker - The Galloping Gastronome - What to look for on food labels, and a chicken soup recipe.
- Bet You Didn't Know - Facts about the body; a multiple choice quiz.
- One Breath at a Time - A breathing exercise.
- Exercise Your Choice - How to design and chart a fun fitness program.
- Hop Skip and Jump to Health - Jump rope technique and games.

•Going Bananas - Banana facts and recipes

2. Eight articles directed toward adults were included in "POWERHOUSE for Parents."

•Fiber, Food and Fitness - Why fiber is important in the diet. Recipes included.

•Learning to Choose "Power" Foods - Nutritious snack ideas that children like.

•Never Take a Fat Chance - Facts about body fat, and some low fat recipes.

•Healing Life's Hurts - Things that children find stressful and some tips on dealing with their anxiety.

•Take a Step Towards Fitness - Walking for fun and good health.

•Tinkering - Interesting uses for discarded items.

•Who's in Charge - A story about a mother, children and dieting.

•POWERHOUSE Quiz - A "knowledge of wellness" test.

1. Method

A rough draft of both the parent and child booklet was distributed to a nationwide sample which included 50 children and 31 parents in the Washington, D.C. metro area; Oklahoma City, Oklahoma; Lafayette, Indiana; Oakland, California; Seattle, Washington; and Charleston, West Virginia. Respondents were selected from neighborhood groups by the regional evaluators, and given the booklet to take home for four days.

The booklets briefly described POWERHOUSE and asked that the

respondent took through all the articles and do the activities that interested him or her. They were then asked to fill out a short questionnaire at the end of each article they read. The children's questionnaire asked whether the article/activity had been read, what had been learned and whether it was interesting. The child's interest rating was obtained on a 5-point "Smiley Face" Likert Scale similar to that used in the treatment and storyboard evaluation.

The parents were asked whether each article read contained new information, whether they agreed with the information presented, and were they likely to use the information in their daily lives. A numerical Likert Scale was provided for the adult's qualitative rating.

2. Results

a. Demographics

The fifty respondents to the children's questionnaire were evenly divided by sex. There were eighteen 8/9 year olds, twenty-six 10/11 year olds and six 12 year olds in the sample. The thirty-one respondents to the adult questionnaire were all female parents with children in the target age range.

b. Ratings

In general, the articles were rated more highly by the younger children in the sample. However, there was general agreement across sex and age as to the most and least well-liked articles. The two

favorites were "Snack Search," a word search puzzle, and "Bet You Didn't Know," a health facts quiz. "Graham Cracker," which showed children how to read labels and make their own chicken soup, received an extremely low rating.

c. Completion Rate

Although younger children were more likely to report favorable attitudes toward the articles, the older children were more likely to complete them. With the exception of "Graham Cracker" (37.5% completed activity), the articles were completed by virtually all the twelve year olds. Completion rate for 8/9 year olds was between 55.5% for "Exercise Your Choice." which was one of the last articles, and 95.5% for "Houdini" which was the first article and "Bet You Didn't Know" which had a 100% completion rate among 8/9 year olds. Although there is a definite trend toward fewer completions in the latter part of the booklet, articles of real interest do very well.

The most likely interpretation of these data may be that the themes were too immature for the older children, while the reading level and complexity of instructions were a source of difficulty for the younger ones.

The most highly rated parent materials were those that, in the parent's perception, provided some new information. The highest ranked of all was "Food, Fiber and Fitness," which talked about the importance of fiber in the diet. The lowest rated was a story called "Who's in Charge." This story had a style that many respondents found irritating.

It seemed to ramble on to no conclusion and contained a number of unacceptable banalities: i.e., "fat dad, fat lad" referring to an overweight child's overeating problem; "It's not what I can do, but what you can do" (about obesity), and "...when your teeth fall out in the prime of your life -- all because you failed to practice good dental hygiene in your youth -- you'll remember the wise words of (Mom)."

Although the recipes included were well received (most respondents said that they were interested in trying them), the data show that the materials were perceived as lacking in new information and applicability to everyday life.

SECTION V

PARENTS AND YOUTH LEADERS ON SEX EDUCATION

During the second Curriculum Review Board meeting in February, 1980, the subject of sex education arose as an issue in need of resolution. APS was asked to develop a questionnaire that would garner data about "gatekeepers" attitudes toward the inclusion of sex education in a program like POWERHOUSE, as well as the kinds of topics they would find useful and acceptable in such a program. For the purpose of this study, sexuality was defined as follows:

> The development of the body during pre-adolescence, certain aspects of reproduction and the relationship between people of the same sex and the opposite sex in the development of attitude toward human relationships.

1. Method

Respondents were given a questionnaire in which they were asked whether they felt sexuality should be treated on any level in a comprehensive health series like POWERHOUSE. If they felt it should not, they were asked to explain their reasons. If they replied "yes" or "yes, with reservations" further questions on the types of information they felt were needed and appropriate were asked. Space for any additional comments was provided.

2. Results

The questionnaire was developed and administered to a group of thirty-eight adults. Most were parents of target-age children. In addition, twelve were teachers, three clergy, two church volunteers,

two membership group leaders and the remainder school employees in some capacity, i.e., counselors, coaches, librarians, etc. Respondents were located in the eastern, southern and western portions of the United States.

All but one respondent felt that sexuality should be treated on some level -- but two thirds of them had some reservations.

Respondents were first given a set of nine questions asked by 12 year olds during earlier research and asked to rank each as a possible POWERHOUSE topic. Most of them supported a straight facts approach (i.e. Why am I so moody? -- Who do I ask about sex? -- Why do girls grow up faster than boys?). But, when any of the questions approached morality or values development, less support was evident (i.e. Is eleven too young to make out? -- How far should I go [with sexual experimentation]?).

A junior high school counselor was the one respondent who felt that sexuality should not be treated at all in POWERHOUSE. He appeared more concerned with the precedent that would be set rather than with the issue of POWERHOUSE providing information. "...It is the homosexuals, the free sex and abortion advocates, and the unisex segments of the population who use every opportunity presented by any open door...(that is the reason for my opposition)."

All of the others, in an open ended question, provided their opinions on what they felt were the pressing information needs of the target age population. Again, issues that involved conveying informa-

tion, rather than developing values, were predominant.

When asked what specific questions involving growth and development target age children would like answered, most of the respondents in favor of the inclusion of some sex education made suggestions such as:

1. Information on puberty and bodily changes
2. Process of birth
3. Emotional/psychological changes
4. Anatomy and bodily functions
5. Non-sexual love
6. Contraception

Finally, an "other comments" solicitation resulted in thirteen comprehensive and varied responses, including:

> The kids don't need sex information drilled into them uselessly, what they do need is factual, frank information in moderate doses.
>
> TV can probably address this issue; however, the tone should not be judgmental or clinical. The subject needs to be treated with sensitivity and taste.
>
> ...I sincerely hope that POWERHOUSE includes this information but I suspect that it will be the object of heated controversy, ESPECIALLY in West Virginia. The idea that sex is a perfectly natural thing and that kids have a lot of sound questions that need straightforward answers is a real problem to most people here.
>
> The question "How far should I go?" (with sexual experimentation) presupposes that sexual activity is accepted as morally OK. While I believe we need to face facts I think many parents would consider this an infringement over their rights....

Though small in number and above average in level of education, the respondents seemed to represent the range of opinion on the issue of sex education. It appeared that the consensus opinion about the

teaching of morals and values is the more volatile issue than the straight facts approach. Nonetheless, the one opinion completely against sex education voices a position that may be held by a larger proportion than 1/38th of the population. A small, well educated sample may represent "gatekeepers," but the possibility that the heat of this issue may be felt more strongly among the less educated segments of the population was seen as an important factor in planning the production of POWERHOUSE.

SECTION VI

NATIONAL FIELD TEST

A nationwide sample of nearly 500 was surveyed to measure the appeal and instructional attributes of the pilot drama and eleven PPIs (two additional PPIs were added after completion of the storyboard and CRB evaluations). Because specific program ideas had already been tested in the treatment and storyboard evaluations, the main purpose of the pilot study was to provide information that would help in making decisions concerning future programs, in order to maximize the appeal and instructional value of the series.

1. Method

a. Site Selection

Selection of five testing areas for the National Survey was made on the basis of geographic diversity and access to the population of 8-12 year olds of varying socioeconomic backgrounds. Tests sites included central Indiana, San Francisco/Oakland, California, Washington, D.C. metro area, Oklahoma City, Oklahoma and the Charleston, West Virginia area.

Data collection was scheduled for the week of July 7. Because this was after the close of the school year, site selection within geographic areas was determined largely by the location of cooperating summer camps and youth groups.

b. Sample Selection

In order to obtain the national sample, it was necessary to obtain the support of leaders of major national youth groups. A

general acceptance of POWERHOUSE by youth organizations on the national level was felt to be important in gaining the cooperation of local youth groups in assembling children for the pilot test.

On May 15, 1980, APS met with New York City based leaders of Girls Scouts, Boys Clubs, YMCA and Girls Clubs. The following week, a meeting was arranged with Washington D.C. representatives of 4-H and the Red Cross. Most of these groups were aware of the POWERHOUSE project and supported the evaluation effort by providing names of local leaders in the selected test sites, and writing letters to them encouraging their participation.

These local leaders were then contacted by phone and sent a POWERHOUSE fact sheet. All were interested in participating. The decision whether or not to work with a group was made on the basis of maintaining diversity of socioeconomic status and of availability of sufficient numbers of target aged children during the data collection period.

After initial telephone contact was made, regional evaluators visited the sites in order to determine if the size and location were adequate for testing purposes. Arrangements for data and time of testing were then finalized.

The major exception of this procedure took place in the Oklahoma City area. The regional evaluator there worked directly with local contacts and families of Native American and Hispanic children in obtaining the sample for that region. A Native American herself,

she felt this to be the most successful way to approach the Native American group in particular.

2. Instrument Design

The measures designed to collect data about the POWERHOUSE pilot program included reported measures in which the respondent was asked to report attitude toward and understanding of the program, and observed measures used to augment and clarify reported measures. The reported measures used were:

Appeal and Comprehension Questionnaire - This instrument was developed in consultation with EFC staff. Its main purposes were:

1. To determine the extent to which children understood the primary learnings of the drama and the program inserts.
2. To determine the extent to which children might change their attitude regarding risk taking behavior as a result of watching the pilot.
3. To determine appeal and salience of primary and secondary characters in the drama.
4. To measure the relative interest in a number of health topics planned for future shows.
5. To measure the overall appeal of the drama and program inserts.

Because of the number of PPIs to be evaluated, two versions of the questionnaire were developed. The first part of both questionnaires contained a combination of multiple choice, true/false, short answer open-ended questions and a five-point "smiley face" Likert Scale on

the drama. The second part of the questionnaires varied according to which PPIs respondents got to see. Version I, given to approximately half of the respondents corresponded to the videotape showing the following six PPIs:

Version I

Frontiers of Science - A boy is shown how biofeedback can help him relax

Accident of the Week - Hidden dangers exist in swimming areas. An amusing illustration of these pitfalls is made by the leading character.

Boys Talk ABout How to Get Girls to Like Them - Excerpts from interviews with teen-aged boys and girls. Emphasis is on regarding members of the opposite sex as people, with feelings and thoughts similar to one's own.

Celebrity Organ - A cartoon character (remarkably like Fonzie in "Happy Days") gives tips on care of the lungs.

The Sugar Connection - Cartoon adventure story in which sugar, The Horrible Hostess, is zapped by the good guys.

Stunt Drivers - Professional stunt drivers show the planning and safety measures that go into their work.

The second version contained the following PPIs:

Version II

Accident of the Week

Frontiers of Science

Body Sounder - An upbeat, rhythmic piece in which a young man makes music by taping his chest, cheeks, and so on. Others join in.

POWERHOUSE Achievement Award - Award winning student radio broadcasters are shown at work.

Playing Volleyball on the Beach - Young girl learns adjustment to growing up by consulting someone a little older.

The Ventriloquist - An amusing illustration of how to be a good

patient: ask questions, provide complete information, and follow the doctor's instructions.

Powerfoods - A young boy shows a tough motorcycle gang the advantages of nutritious snacks.

"Accident of the Week" and "Frontiers of Science" were included in both versions so that the first PPI could serve as a baseline for comparison and so that the respondents could have an opportunity to practice the procedure on one PPI without affecting its rating.

The questionnaire was pre-tested on a group of children from the Metro Washington DC area.

Focus Interview - A small group interview was designed in order to obtain in-depth information on attitudes toward POWERHOUSE and its characters. Volunteers were asked for at the end of the written evaluation portion in a selected number of test sites (ten interviews per region). Five children per group were selected so as to provide a representation of sex, age and ethnicity. Interviewees were asked how they felt about the program and what, if anything, they would change. Information about appeal of the characters was gathered, as well as information about TV viewing habits.

The observed measures used were:

Attention Profile - Two observers are responsible for recording the eye direction (toward or away from the television set) of ten viewers per group. Before screening, each observer selects five viewers, then at alternating ten second intervals, the observer records the eye direction of the five selected viewers. The final output of this

measure is an attention line graph by scene. It illustrates the segments of the program that capture or lose the attention of the viewers.

Researcher's Group Report - In addition to providing demographic data, this report allows the researcher to give anecdotal information about the evaluation procedure, interesting reactions to particular scenes in the drama, and general group reaction to each of the program inserts.

3. Evaluation Management

Two evaluators were present at each testing session. One introduced the program, emphasizing to the children the real interest that the program producers had in learning their honest reaction to the pilot. Meanwhile, the other evaluator set up the tape, gathered demographic data and distributed questionnaires. The written demographic portion of the questionnaire and the pre-test were then administered. Each pre-test question was read aloud by the evaluator.

The drama was shown, during which time the attention measure was taken by the evaluators. After viewing the drama, children were asked to respond to questions about it. The evaluator read aloud eash post-test question, allowing time between them for completing the answer.

The PPIs were shown next. Ten seconds of blank tape were left between each PPI to leave time for making the Likert Scale rating

immediately after viewing the insert. The remainder of the PPI portion of the questionnaire was then read to the children.

At the end of the testing session, volunteers for Focus Interviews were requested. In some instances, these interviews were done in another room during the administration of the PPI portion of the questionnaire.

4. Results Drama

a. Demographics

Slightly more than half of the respondents were male (53%). Sixty-nine percent were White, 21% were Black with the remainder either Native American or Hispanic. Within the eight to twelve age range, 23% were eight, 22% nine, 25% ten, 18% eleven and 10% twelve. The table below illustrates the regional demographics.

TABLE 7
Regional Demographics

	n	%
Washington, D.C.	96	19
Charleston, W. Va.	118	24
Oakland, Ca.	89	18
Lafayette, In.	158	32
Oklahoma City, Ok.	33	7

b. Ratings

A five point Likert Scale was used to determine how well the children liked the action-adventure story. Fifty-six percent said it was great, 25% rated it good, 13% said it was ok, 4% and 3%

rated it bad or terrible, respectively. The overall point score was 4.29 out of a possible 5. There were no significant differences in answers due to race, age or sex. The end was named the best part of the story (65%). Forty percent said no part of the story was boring. Fourteen percent said the beginning was most boring.

It was also apparent from the high Likert Scale ratings that the action-adventure format holds a lot of appeal for the target age child. Clearly, the format strikes a responsive cord and holds the viewer through the entire program.

c. Series Theme

Two areas were seen as especially important in evaluating the effectiveness of the series theme: the perception of the POWERHOUSE kids as a positive close knit group and the ability of the program in communicating the concept of being a POWERHOUSE as a personal goal.

The respondents were asked why the POWERHOUSE kids liked being together. Responses show a clear understanding of the group as friends who enjoy working, having fun and solving problems together. Over 70% of the responses were in this vein. Apparently, despite differences in age, sex and race, the POWERHOUSE kids form a group that is perceived as natural and realistic.

After viewing the program inserts, as well as the drama, children were asked several questions about being a POWERHOUSE.

Seventy point five percent of all respondents replied yes to the question, "Would you like to be a POWERHOUSE." Further, when asked "Do you think you are a POWERHOUSE," 59% of the answers were affirmative. The kinds of things cited as "making you a POWERHOUSE" (an open-ended question) were mainly eating good foods and exercising, but one of the most frequent responses was "I don't know." The idea of what makes a person a POWERHOUSE does not appear to be well defined in the minds of the respondents.

There may also be a gap in the target audience's understanding of the POWERHOUSE concept. Is POWERHOUSE a place or a state of being? Aside from eating the right foods, how does one get to be a POWERHOUSE? This issue is central to the development of the series. If the sum total of exposure to all programs in the series is to be the recognition that "we all have a POWERHOUSE deep down inside," then that overall concept must be communicated in each individual program. This concept did not appear to be effectively communicated in the pilot.

d. Characters

The appeal of the primary characters was measured in several ways. First, a picture of the five POWERHOUSE kids was shown in the questionnaire booklet. Children were asked to pick their favorite character. Bizzy was chosen most often (34%), followed by Lolo (28%), Kevin (19%), Bobby (14%) and Jennifer (6%). There were clear sex differences in choice of favorite character. Girls overwhelmingly

chose a female character, Bizzy (54%), while boys chose Lolo (36%) and Kevin (27%).

Children were also asked to recall the names of the POWERHOUSE kids in the picture. The most remembered character was Bobby (49%), followed by Bizzy (57%), Lolo (30%), Jennifer (6%) and Kevin (4%).

Bizzy and Lolo were strong characters on both measures. Part of the reason may be that they play central roles in the pilot story. However, they are clearly well liked. Respondents were asked to state why they liked a character best. Words most frequently used for Bizzy were daring and funny; for Lolo, smart, solved problems and funny. Kevin appeared as a character worth developing more. Though he played a relatively small role in the pilot, he was rated highly, and described as smart, a leader and cool. Although Bobby was most remembered, his appeal rating was relatively low. Jennifer was described as good and nice. She was not particularly memorable by the majority of respondents, but she may be a good foil for the other characters.

Of the secondary characters, Brenda, the adult leader of POWERHOUSE, was chosen as the favorite (40% overall, 63% by girls). Al, the detective was the second favorite overall (20%). He was the first choice of the boys (41%), followed by Brenda (25%) and Keeno, the hood (19%). Keeno was the third favorite overall, followed by his pals, the fence's girlfriend and the fence.

Unquestionably, the characters, both individually and as a group are one of the strongest attributes of POWERHOUSE. Post

viewing recognition is high and identification by name is impressive. Further, the overwhelming finding that "the POWERHOUSE kids like being together because they are friends," illustrates the visceral level of acceptance of the group despite the obvious disparity between them on all levels (age, race, sex, etc.). Both target age children and adults identify in a positive way with the characters. In general, therefore, the conclusion is supported that the characters are well conceived and likeable.

e. Learnings

There were several primary learnings to be conveyed by the series pilot. Each is provided below, followed by the evaluation findings:

- The decision to take a growth producing risk may require some adult help and guidance.

The question that addressed this learning was: "After Bobby was caught in the alley, what did Brenda do?" Sixty-two percent responded with the preferred answer, "She helped them to think before taking chances." Only 5% and 16%, respectively, said she ignored or punished them. Brenda was seen as a helpful, caring figure, and an inference can be made that seeking adult assistance was viewed as helpful and positive.

- Before a risk is taken, one should stop, take adequate time to think about it and consider possible consequences, and then decide whether the risk is worth it.

A pre-post test question on risk taking was asked before and

after viewing the drama. In the pre-test, children were asked to check one of the following (percent of responses for each of the choices is also shown):

Question:

You should take chances that are exciting	(25%)
You should take chances after thinking	(59%)
You should not take chances	(16%)

In the post-test, the alternatives were:

The drama is about:

Question:

Taking chances that are exciting	(8%)
Taking chances after thinking	(54%)
Should not take chances	7%)
How to catch jewel thieves	(29%)

In both pre and post-test situations, "taking chances after thinking" was the most frequent answer. However, the percentages of responses in this category does not increase after viewing the drama. Furthermore, the post-test response receiving the second most frequent answer was "How to catch jewel thieves." A superficial interpretation of the story may be foremost in the respondents' minds after viewing the pilot. The only statistically significant difference in responses due to socio-economic factors, occurred in the post-test. "Other" minorities were more likely to "take chances that are fun and exciting" than either Whites or Blacks.

> •Taking risks always have elements of personal gain and loss, and you cannot be blinded by one or the other.

A series of questions allowed children to react to risk situations they might encounter in their own lives. Their response to the degree of risk they were willing to take were measured before and after viewing

the drama. For each of four statements, children were asked to check one of these five choices: "I would not do that," "I would probably not do that," "I don't know," "I would probably do that," "I would do that."

The working hypothesis was that viewing the drama would cause change from firmly held "would" or "would not" positions to "probably" positions, indicating a tendency to think before taking chances. This did not occur. Learning to weigh the pros and cons of risk taking does not appear to be a result of viewing the drama.

TABLE 8
Pre-Post Test Change In Reaction To Risk Situations

Pre-post % of Change	Questions	% would		% probably would		% don't know		% probably not		% not	
		pre	post	pre	post	pre	post	pre	post	pre	post
54%	keep a box without knowing contents	14	10	12	6	25	21	17	16	32	48
42%	help a friend who is in a lot of trouble	64	53	19	21	10	15	2	4	6	7
40%	stand up to a tough kid who is picking on a little kid	38	35	27	27	20	24	3	4	11	10
38%	tell on someone even though he or she has threatened to beat you up	50	49	24	19	17	20	3	3	7	10

In order to maximize learnings, a series-wide concern should be relevance. To motivate the target audience in some direction, there must be some clear parallel between the story and events that might be occurring in the child's life. This is not to say that fantasy cannot or should not play a large part in the development of the story, but that some sub-plot should be developed to reinforce the concept the program is aiming to teach.

As an illustration, the original script contained a sub-plot about Bizzy trying out for a talent show. This is an idea that children of this age group can understand. As a comparison, 68% of the children who listened to this story as a script treatment agreed that "the story was mostly about taking risks after thinking about what might happen to you or others." (62% of the males, 73% of the females.) Yet, upon seeing the completed program, without Bizzy's sub-story, only 55% of the children agreed that the point of the story was thinking before taking risks. While there are, no doubt, other variables at work here, the absence of Bizzy's sub-plot could very conceivably have had a negative effect upon the basic learning.

Another technique that has been found to enhance learning with this age group (see page 7 of the Writers' Notebook) is to state the message directly in a number of ways. In the pilot program, the only time the message was clearly stated was when Brenda took the kids back to POWERHOUSE after Bobby's arrest. There was a brief reference to a "plan" by Bobby in the van outside Millie and Al's, but this was not a direct statement like: "we're taking a risk, we should think about what might happen." It might also be worthwhile to

state the learnings at the outset, maybe as a subtitle (i.e. Chance Alley or "Taking Risks After Thinking"), or as a lighthearted, funny billboard. There is no reason to be subtle with this age group. If the viewer knows what he or she is looking for, its so much easier to find it.

Finally, some aspects of the pilot program are inconsistent, particularly Bizzy's behavior. Although there is a process by which the consequences of risk taking are evaluated, Bizzy, right up to the end, does not learn the lesson. Even in the epilogue she's taking foolish risks and rewarded for it. She's always caught just in time, is subject to no punishment, gives everyone a big laugh and, almost as a bonus, is the center of everyone's attention. Surely this is an aspect of her behavior that makes her an appealing character, but there is a danger of overdoing it to the detriment of the learning.

f. Attention Measure

The Attention Measure, described in the Design of Instruments Section, showed a high attention level throughout most of the program. There were several scenes, notably a scene where the POWERHOUSE kids wait outside Millie and Al's Restaurant, and a scene inside Detective Al's office, where the level of attention drops considerably. These were regarded as areas where editing could improve interest.

g. Ideas for future programs

Children were asked to check the topics which they would be very interested in seeing on future POWERHOUSE shows. The mean frequency of selection was 36.4%, therefore anything 37% or over was above average and is included below.

TABLE 9
Suggested Topics For POWERHOUSE

Subject	% of Viewers
dating	55
making friends	55
growing up	53
moving into a new neighborhood	51
the importance of practice	50
family problems	47
taking responsibilities	43
competition	42
being a boy	42
getting along with others	41
making decisions	40
drinking alcohol	40
what to do in free time	39
having babies	39
physical handicaps	39
being small for age	38
marriage and family life	37
taking care of body	37

5. Results - PPIs

a. Demographics

Fifty-seven percent of the children who viewed Tape #1 were male. Sixty-four percent of the respondents were White, 22% Black, and 14% either Native American or Hispanics. Within the eight to twelve age range, 28% were eight, 22% were nine, 23% were ten, 16% were eleven and 10% were twelve.

Of the children who viewed Tape #2, 52% were male. Seventy-four percent of the respondents were White, 19% were Black, and 7% either Native American or Hispanic. Within the target age range, 18% were eight years old, 26% were nine, 27% were ten, 21% were eleven and 9% were twelve.

b. Ratings

As a group, the PPIs were not as enthusiastically received as the drama. Only "Powerfoods," with a 4.8 rating on the five point scale, was considered "great" more often than the drama at 4.29. Other high rated PPIs were "The Ventriloquist" at 4.1, "Stunt Drivers" at 4.0 and "Celebrity Organ" at 4.1.

Ratings for the inserts in Tape 1 and Tape 2 are shown below.

TABLE 10
Ratings of Tape 1 PPIs
In Descending Order Of Appeal

	Rating on 5 Point Scale
Powerfoods	4.8
Celebrity Organ	4.1
The Ventriloquist	4.1
Stunt Drivers	4.0
Accident of the Week	3.8
Accident of the Week	3.8
Body Sounder	3.8
Playing Volleyball on the Beach	3.7
The Sugar Connection	3.7
Frontiers of Science	3.6
Boys Talk About How to Get Girls to Like Them	3.6
Frontiers of Science	3.6
POWERHOUSE Achievement Award	3.6

Some of the common elements of the four most successful PPIs might be helpful to consider. As might be expected, both "Powerfoods"

and "Stunt Drivers" appeal more to boys. At this age, this is a more difficult group to satisfy. The high ratings here may be largely due to boys' enthusiasm for "wheels."

Another factor to consider is the appeal that three of these PPIs had for children on the young side of the target age range and the fact that there were more young children in the sample. The median age of respondents was 10 years. "Powerfoods," "Stunt Drivers" and "Celebrity Organ" were ranked "great" most often by a child of the average age 9.8 years; just lower than the median. "The Ventroloquist," on the other hand, was appealing to the 10.14 year old, or just higher than the median age. This finding is in keeping with the research literature indicating that the younger child's sense of humor is more responsive to animation and the older to sight gags and spoken humor of the type used in "The Ventriloguist."

In keeping with the discussion of age as a variable we find that only three other PPIs appealed to older children: "Boys Talk About How to Get Girls to Like Them" (10.4 years); "Playing Volleyball on the Beach" (10.5 years) and the "Achievement Award" (the highest at 10.6 years). The reasons for the first two are obvious. The older the child (male or female) the more likely they are to be interested in PPIs that deal with sexuality in some way. The findings on "Achievement Award" are a little more difficult to explain. However, this result is supported by the results shown during testing of the "Achievement Award" as a storyboard. Then as now, the "Achievement Award," while not universally the most popular, is the <u>best liked PPI by the older children</u>, particularly 12 year olds. This is

interesting because when all scores are averaged together, "Achievement Award" is only surpassed by "Frontiers of Science" as the least effective PPI on rating, recall and message identification. This finding may indicate that the topic of the particular "Achievement Award" evaluated in the national field test has more to do with its poor performance than with the idea of an "Achievement Award" itself.

c. Recall

After viewing PPIs assigned to their condition, children were given a list of all eleven PPI titles, both those they had seen and those they hadn't. They were asked to place a check in front of each title that they remembered seeing.

The PPIs children were most likely to remember were "Boys Talk About How to Get Girls to Like Them" and "Stunt Drivers" on Tape 1 and "Playing Volleyball on the Beach" and "Body Sounder" on Tape 2. Once again, consistent interest in emerging sexuality is apparent. "Body Sounder" performs well on recall as well as appeal. The action-adventure in "Stunt Drivers" may account for its memorability.

One interesting finding is that the "Achievement Award" is remembered by over 90% of the Tape 2 respondents although both its rating (3.6) is not spectacular and its message identification (49%) is very poor. One hypothesis is that the idea of an "Achievement Award" is more appealing than the particular group of award recipients on the tested PPI.

d. Message Identification

A list of the main messages in the PPIs viewed was given with a list of the titles of all eleven PPIs. Children were asked to match each message to the correct title.

Except for "Accident of the Week" (86% message identification), no PPI message was clearly identified by the target group. This may point to one of the most important omissions in these PPIs. There is a lack of "product" identification. Even if the product in question is an idea, it must be clear what the idea is supposed to be. Liking and recall are not nearly as important as message identification to a commercial advertiser. Even when the advertiser is trying to sell an idea, the viewer is left with a clear conception of that idea. When we look at the particularly low reports of message identification, "Frontiers of Science" (47%) and "Achievement Award" (49%) for example, we see this phenomenon clearly illustrated. What is being sold in the former? Biofeedback? Relaxation? How about the latter? A radio show on health? Maybe. Health and beauty tips? Perhaps.

"Accident of the Week" on the other hand has a clear message, "look before you leap." Another clear message was reported by viewers of "Body Sounder" -- Play your body. While the "Body Sounder" message is not one of the most valuable, it is an attention getting, fun piece.

If, as future PPIs are written, a clear three or four word

message is stated before the PPI is developed, a good deal of viewer confusion may be eliminated.

6. Researchers Group Report

The Group Report was designed to provide observed data on children's reactions to both the drama and the PPIs. It also provided some demographic data that was not obtained from the children's questionnaires, specifically, the researcher's estimation of the socio-economic standing of the community in which the testing took place, and the "environment" of the test site (urban, suburban, etc.) Descriptions of the test facilities themselves were also part of the report.

The reports showed an even representation between working and middle class communities, with one instance of an upper middle class group. Environments included three urban, three rural, four suburban, four inner city and two small town locations.

Observation of the children while viewing the drama showed a generally high level of attention. One exception was a West Virginia group that had just returned from swimming and was not ready to switch gears to a quiet activity.

Children were quite responsive in their viewing. There were overt expressions of tension during the scenes where the POWERHOUSE kids were in danger, and there was considerable laughter at the appropriate places (when Bizzy bites the thug's hand, when the thugs

fall on their faces because the door knob has been loosened, etc.). There was one group (Washington inner city) which was not overt in its reactions, although the children did watch carefully.

Overall reported group reactions to the PPIs were categorized as positive, negative or neutral. The results are shown below.

TABLE 11
Group Reaction to PPIs

Name	+	-	Neutral
Accident of the Week (both tapes)	8	3	2
Frontiers of Science (both tapes)	5	4	4
Get Girls to Like Me	2	2	3
Celebrity Organ	3	1	3
Valiant Vegetables	1	3	3
Stunt Drivers	3	1	3
Achievement Award	0	3	3
Volleyball on the Beach	3	1	2
Ventriloquist	5	0	1
Body Sounder	6	0	0
Powerfoods	6	0	0

The clearest results are the uniformly positive response to "Body Sounder" and "Powerfoods." The response to "The Ventriloquist" was also very positive. There were no positive overt responses to "Achievement Award" and only one to "Valiant Vegetables."

Data from this measure reinforce those which were obtained from the viewer questionnaire.

7. Focus Interviews

The primary purpose of the Focus Interviews was to provide anecdotal information from children who viewed the pilot program.

Each interview group of five children was asked the word they

felt best described the show. Responses were uniformly positive (great, exciting, friends, scary, etc.).

When asked what one part of the show they would like to see changed, most children replied "nothing." Other responses involved minor rearrangement of plot and, in two cases, a desire for a character of the same sex as the respondent to play a part that was found particularly appealing.

Respondents were also asked the first word that came to mind in describing each character. Words were positive, except those applying to the hood, Keeno (bad, careless, bossy), and some of the words applying to Bobby (dumb, careless, he steals). All the descriptors were "in character."

The most frequently cited characters in response to the question "Who is your first choice to play a main part in future shows?" were Bizzy and Lolo, followed by Kevin and Brenda. Reasons given were along the lines of "I liked him/her," "funny,""exciting," "smart."

Finally, respondents were very positive in their expression of interest in watching other programs in the POWERHOUSE series.

SECTION VII

MARKET TEST IN TOLEDO, OHIO

A full-scale market test was conducted in Toledo, Ohio. In order to study the pilot program's performance in a "real world" environment, the program aired on the public station (WGTE-TV) in the market. Outreach activities planned for the series were also conducted. A randomly selected sample of 1420 households were called to determine:

1. The effectiveness of the outreach activities
2. The potential audience willingness to view the pilot.

A school evaluation was also performed to determine if children, asked to watch the program in their classes, would watch. A secondary objective for the school evaluation was to determine if the availability of print materials would facilitate willingness to watch and understanding of the purpose of the program.

1. Method

a. Site Selection

The city of Toledo was selected for two reasons: first, because the city's demographics closely reflect the demographic characteristics of the U.S. population; and, second, the Educational Film Center has had a close working relationship with the general manager of WGTE-TV for a number of years. He was willing to cooperate by airing the program on four consecutive days.

The POWERHOUSE pilot program was aired at the following times:

Thursday	November 20, 1980 - 7:30 p.m.
Friday	November 21, 1980 - 3:30 p.m.
Saturday	November 22, 1980 - 9:30 a.m.
Sunday	November 23, 1980 - 8:30 a.m.

b. Sample Selection

(1) Survey

A total of 1420 households were randomly selected using the random digit dialing technique. Thirty experienced interviewers began telephoning on Friday evening, November 21st. Telephoning continued over that weekend until 5:00 p.m. on Sunday, November 23rd.

(2) Schools

The schools sample was selected by Ron Sakola, the Physical Education Director of Toledo's public schools. He selected two schools that he considered representative of Toledo's population. Harvard Elementary School and Martin Luther King Elementary School. Three classes in each school were selected; one each of 4th, 5th and 6th grade.

Principals of these schools were contacted and agreed to allow a POWERHOUSE researcher to enter each selected classroom on Thursday, the day of the first airing on Channel 30. A return visit the following Monday (November 24th) was also requested and approved. On the first visit, each student was given a note to take home stating the times POWERHOUSE would be aired and asking him/her to watch one of the four times. The note also included APS' telephone number so that parents could call to verify the purpose of the request. (No parent

called.) Two classes of children, King's 4th grade and Harvard's 6th grade were also given print materials in draft form for their use. The same questionniare was administered to both the "print" and "no print" sample on the second visit.

2. Instrument Design

a. Survey

Two different questionnaires were developed for the telephone survey. The first was designed for those respondent's who answered "no" to the question: "Have you ever heard of POWERHOUSE?" The second for "yes" respondents to the same question. Obviously, this sorting question separated those who had been reached by the newspaper and radio ads and other outreach activities from those who had not been reached. Thus, we are able to determine the reach of the advertising independent of viewing the program. All questions were short answers.

b. Schools

One question was developed for the school version. Questions asked of those who viewed POWERHOUSE were similar to the telephone survey instrument questions. In addition, specific questions about PPI recall and message identification were also asked.

3. Evaluation Management

The telephone survey was managed by Dr. Rebecca Klemm, Assistant Professor of Business, Georgetown University. Dr. Klemm was present on all 3 days. All calls were made from the Georgetown University Alumni House using their 20-telephone bank. Interviewers were

required to keypunch all data that they collected and submit cards to Dr. Klemm by 5:00 p.m. on Sunday evening.

The schools research was conducted and managed by Monica Dignam, the principal investigator.

4. Results

a. Survey

(1) Demographics

Of the total sample of 1420 households[1/] 62.3% of the first respondents were female; 37.4% male. First respondent ages ranged from a low of 6 years to a high of 96 years. The average age of the first respondent (i.e. the person who answered the phone) was 38 years. Forty-five point six percent of the households had at least one child under sixteen living within. Thirty-one point four of them have at least one child between 8 and 12 year olds, our target range. The average number of children per household is 1.94. Four hundred thirty nine 8-12 year olds were present in the 1420 households in the sample.

(2) Recall of Outreach Activities

Outreach activities developed by Contact Media, Inc. included the following:

Placement of print and advertisements in the following publications:

1/ Throughout this section "households" and "viewers" will be referenced. The reader is reminded that a "household" normally contains more than one individual. A viewer, on the other hand, refers to an individual person within a particular household.

•Sunday, November 16th Toledo Blade

•Thursday - Sunday TV Tabs (supplement to the Blade

•Thursday - Saturday daily edition of the Blade

•The Catholic Chronicle

Broadcast advertisements on the following stations:

•WOHO - AM
•WLQR - FM
•WGTE - TV (the station airing POWERHOUSE in the market)

Community outreach efforts including personal visits and/or mailing series factsheets and broadcast information to the following groups:

•Boys Clubs
•Boy Scouts
•Council of Churches
•4-H
•Girl Scouts
•PTA
•Public Schools
•YMCA

As discussed in the Instrument Design section above, an effort to determine the most effective outreach methods was made by asking telephone respondents the presort question: "Have you ever heard of POWERHOUSE?" This question was followed-up for "yes" respondents by the question: "Do you remember where you heard of POWERHOUSE?" Results show that all outreach activities yielded 17.2% recall of the series title. This means that of the 1420 households 244 recalled at least one element of the outreach activities. Of these 244, 24% of the households reported at least one viewer.

The table below illustrates the relative effectiveness of each outreach element.

TABLE 12

Comparison of Reach and Viewership
by All Outreach Elements in Raw Numbers

Element	Total Reach	All Viewers	8-12 Viewers
WLQR - FM	12	1	1
WOHO - AM	17	4	1
Sunday Blade	23	8	4
Weekday Blade	79	15	7
TV Tabs	30	7	4
Channel 30	63	15	10
Catholic Chronicle	4	1	1
School	12	4	3
Membership Organization	2	1	1

As this table illustrates, one of the most effective promotional media was Channel 30. One inference that may be drawn from this finding is that regular viewers of Channel 30 are more likely to watch a program carried over the station.

It is apparent that advertisements directed toward parents are more effective in print than either broadcast advertisements or membership group dissemination. However, it is also celar that for whatever reason, parents were not effective as conduits of information about the program to their children. When those parents who had been

reached by any outreach element were asked if they told their children to watch, only 14% reported informing or encouraging their children to watch. When the remaining 86% of them were asked why they did not inform their children of the availability of POWERHOUSE, most said that they "did not know why" they didn't mention POWERHOUSE to their children. Other reasons were that they forgot, or don't monitor their children's television viewing. The remainder varied between not allowing television at all, conflicting plans and unavailability of Channel 30 on the home television.

(3) Viewership

(a) Survey

As Table 12 illustrates, 27% of the *households* that had heard of POWERHOUSE through one or more of the outreach elements actually tuned in on one of the four days the program was broadcast. There was at least one target age child in 48% of these households. A grand total of 107 individuals, ranging in age from 2 to 68 years watched the program, 44 of them were in the target age range.

The inverview schedule called for a second respondent if either of the following conditions applied:

1. there was an 8-12 year old viewer available in the household; or

2. the first respondent was not a viewer but a viewing household member was available at the time of contact.

This technique allowed us to maximize responses from actual viewers. It also allows us to compare responses of 8-12 year olds with all other respondents for a selected group of questions.

Viewer respondents were asked why they watch the program. Their responses are illustrated in Table 13 below.

TABLE 13

Why Viewers Watched POWERHOUSE
in Raw Numbers

Reason	8-12 Year Old Viewers	All Viewers
heard through school	10	11
parents told me to watch	8	11
nothing else on	6	25
saw print ad	5	20
friends told me to watch	3	8

If the results of so small a sub-sample are reliable it would appear that, while the average viewer is a dial turner and selects television programs based upon the "least objectionable" theory, the target age child can be motivated by adults (or adult controlled institutions) to at least sample the program. It is unfortunate that this research also indicates that parents are not likely to exercise their influence (see discussion regarding outreach activities directed toward parents above).

The "least objectionable" view finds support in the viewer/respondent's reply to the question: "Why did you watch POWERHOUSE?" Twenty-

five percent said "because there was nothing else on." Twenty percent were motivated by a print ad. Parents and schools were equal at 11% and friends were responsible for viewing in 8% of the cases.

Nonetheless, it appears that the schools can also have an influence over the target age child's television viewing. If the support for POWERHOUSE in the Toledo schools is indicative of the level of support that can be expected on a national level, increased outreach activities in the schools may result in increased viewership.

Of the four broadcast opportunities, Thursday at 7:30 p.m. was preferred almost two to one over all other times. This preference was constant for both categories of viewers examined (target age viewer and non-target age viewer). When asked the follow-up question; "Would there be a better time for you to watch POWERHOUSE?" most respondents said "no." Of those who answered "yes" to this question another prime time weekday evening was suggested.

(b) Schools

Of the two conditions 79% of the print material recipients watched the program, 60% of the children that did not receive print materials watched. Not surprisingly, possession of print materials enhanced viewing.

As in the survey, school respondents in both conditions were more likely to watch the program on Thursday evening, although they were more likely to watch on Saturday morning than survey respondents.

In all other respects, the school viewership results support the survey results.

5. Program Content

(a) Survey

Three survey questions concerned program content. The first asked "What was the best part of the program?" Four alternatives were given: the story, the commercials (PPIs), the kids in the show, the grown-ups in the show. As in the national field test "the kids in the show was" number one (37%). The story was a close second at 35%, followed by the adults, 13% and the commercials, 10%.

The second content question concerned the message "What did POWERHOUSE teach you about taking risks?" Sixty percent of the viewers selected the alternative: "It's not OK to take risks because they could be dangerous." Nineteen percent selected: "It's OK to take risks if you think of ways to do them safely." Twelve percent didn't remember and the remaining seven percent selected "taking risks is fun."

One question clarified an issue that arose in the field test. Did children understand that "we all have a Powerhouse deep down inside?" The field test results indicated that that message may have been garbled. The survey results illustrate that a clear majority (67%) understand that everyone can be a Powerhouse.

(b) Schools

Again, the schools testing supported the survey results in content area with some exceptions. School respondents were roughly equally divided between the risk alternatives: "It's not OK to take

risks because they could be dangerous," and "It's OK to take risks if you think of ways to do them safely," 43% and 44% respectively. Possession of print materials did not affect results on this question.

A few additional content questions were asked in the schools version. They dealt with recall of commercials (PPIs) and messages. Here, possession of print materials positively effected both recall and message identification. Table 14 below illustrates these findings.

TABLE 14

Recall and Message Identification of PPIs in Percent

PPIs	Print		No Print	
	Recall	Message	Recall	Message
Accident of the Week	35	22	19	9
Celebrity Organ	60	38	21	27
Ask, Answer, Act	76	20	46	9
Body Sounder	69	33	34	27
Grow Up	67	20	75	20

Table 15 provides data on Likert scale ratings and readership of print materials by grade.

TABLE 15

Print Ratings

Rank	4th Grade		6th Grade	
		% Read		% Read
1. Nutrition Maze	4.83	(71)	4.75	(91)
2. Bonus Snacks	4.60	(71)	4.52	(86)
3. Puzzle	4.75	(71)	4.27	(82)
4. What's Up, Doc?	4.60	(65)	3.83	(82)
5. Harry Houdini	4.09	(65)	4.26	(86)
6. Exercise Choice	4.20	(71)	4.10	(73)
7. Arduous Alibi	3.85	(53)	3.95	(86)
8. Bananas	4.09	(65)	3.94	(86)
9. Way to Grow	4.08	(71)	3.87	(82)
10. Power in Your House	3.92	(71)	3.86	(82)
11. POWERHOUSE Reports	3.60	(59)	3.78	(91)
12. Past Tense	3.82	(65)	3.70	(91)
13. Make Habits Work	3.40	(53)	3.65	(91)

Finally, two questions dealt with the children's perception of the program's appropriateness for their age and a comparision of POWERHOUSE to the following highly rated programs.

White Shadow	3.2.1. Contact
Tom & Jerry	Happy Days
Brady Bunch	Charlie's Angels
World of Disney	Good Times
Vegetable Soup	Big Blue Marble
Little House	M*A*S*H*

Eighty-six percent of the respondents found POWERHOUSE age appropriate and rated POWERHOUSE equal to or better than all shows to which it was compared.

All children said they "liked" the show and would watch another program in the series.

6. Conclusions

It appears that the bulk of outreach activities should be directed toward the child rather than his or her parents. The majority of parents do not seem to recommend that their children watch certain programs even after they have heard about the benefits of such programming. To be sure, many parents did not know why they didn't tell their children about POWERHOUSE, but the fact remains that they did not.

Membership groups are equally unreliable. In this study, both membership groups and schools were given the same information *at the same time*, yet hardly anyone heard about the program from membership groups. Ten target age children, one fourth of these who watched, heard through school. Other direct advertising to the target age child can be placed on "bubble gum" radio stations, The Weekly Reader, Saturday morning or prime time access programs favored by the target age child.

On distribution, it has been observed over the years that children associate "public" television with "educational" television and

equate "educational" with boring. Except for the in-school service the Public Broadcast System has not been effective in appealing to children. Commercial distribution during the prime time access period might improve viewership significantly.

SECTION VIII

CAPTIONED EVALUATION FOR THE HEARING IMPAIRED

1. Method

A small group of hearing impaired or deaf children students at the Washington Hearing and Speech Society's school watched the captioned program. After viewing all that were capable completed a brief questionniare. The questionnaire was individually administered by teachers.

2. Instrument Design

A ten-question short-answer questionnaire was developed. The questions concerned program appeal, comprehension and recall. All questions had been asked of hearing children in earlier research.

3. Evaluation Management

The sample was recruited and the plan implemented by the principal investigator. A tele-caption television was donated by Sears Roebuck and Company for use in this evaluation. The National Captioning Institute, Inc. captioned the pilot program.

4. Results

A discussion of the quality of captioning may put the results into context. The head teacher at the school, Linda Carter asked to see the program before agreeing to cooperate. During this preliminary viewing a few captioning problems were apparent as follows:

- Some words were mispelled.
- Articles like "the" or "a" were frequently absent making it difficult to make sense of some phrases.
- Some captions blinked on and off in less than 2 or 3 seconds making them a distraction.
- Some captioned words were more complex than the actual dialogue.
- The captioning moved altogether too quickly.

Because of these problems Ms. Carter was initially reluctant to allow us to use her students. Fortunately, after seeing the whole program, she felt it would be beneficial for those that could follow it and not detrimental to those that could not.

Ms. Carter was correct, of the 12 children in the group, only 6 would complete the questionnaire. Although most felt that captioning was superior to signing for television, they suggested that the captions moved too quickly. Exactly half felt the captions enhanced understanding, the other half did not.

It was apparent that not all of the children were reading the captions. However, the responses given by the 6 children who filled out a questionnaire also indicate that the message "It's OK to take risks if you plan ways to do them safely," was communicated. Five of the six responded in this way.

In the PPI recall question, no child reported seeing a PPI that was not shown. Recall of the PPI's was as follows:

PPI	NO. RESPONSES
Celebrity Organ	5
Growing Up	5
Body Sounder	4
Accident of the Week	3
Ask Questions/Get Answers	2

All of the children said they liked the show and would watch another. Five of them agreed that everyone can be a POWERHOUSE.

In general, these children relied more on the pictures than the printed word to decipher the meaning of the program. Because the sample is extremely small and the captioning of poor quality, it's difficult to proffer conclusions. However, it's obvious that hearing impaired and deaf children understand and enjoy television with or without captioning. It would seem that well executed captioning could enhance their comprehension.

SUMMARY

The evaluation of POWERHOUSE was divided into two major sections, the Writers' Notebook and original formative research.

The Writers' Notebook, a literature review and analysis, provided the POWERHOUSE writers and producers with background information on the target age child's television preferences, response to commercials and learning styles. Research showed a strong preference for cartoons among the younger members of the target age range giving way in the older children to interest in action/adventure and comedy shows. Some sex differences appear, with girls preferring human interest themes over action and sports. Attraction and appeal of a program was shown to be related to elements affecting comprehension and identification, such as emotional appeal, visually presented information and peer information sources.

Because the POWERHOUSE Program Inserts (PPI's) were to be modeled on a format similar to commercials, relevant findings from the advertising research literature were provided. Response to commercials was found to be related to a child's intellectual maturity. The child in the target age range is generally able to understand the intent of a commercial and is aware of the physical and functional factors which differentiate commercials from programs. A number of elements that produce effective commercials was described, including issues of program environment (repetition, length, position); the use of color, humor and music; the role of the endorser and the design of appeal.

The first task accomplished by the original research conducted

for POWERHOUSE was to establish the health knowledge information base that target age children would bring to their viewing of POWERHOUSE. A series of focus-interviews with children and follow-up questionnaires, using a larger sample, provided information on knowledge of drugs, sex and body svstems; and general health and nutrition. It was found that the superficial knowledge level on these topics was generally high, however the depth of understanding was uncertain.

Although respondents knew the names and nicknames of a variety of drugs, for example, there is no reasons to believe that this represents an understanding of the use and dangers of these substances.

Questioning about self-concept and sex roles produced responses that were, on the whole, stereotypic in nature. Men were seen as stronger and more productuve by both males and females. Advantages of womanhood were seen primarily in terms of physical appearance, childbearing and housekeeping.

Additional information, including recreation, media and food preferences, was also catalogued in this section.

The next evaluation procedure was to assess the reactions of children, teachers and youth leaders to narrative versions of three different scripts, all with the underlying theme of taking only carefully planned risks. At the same time that the script treatments were tested, pictures and brief character descriptions of potential series regulars were also evaluated. A questionnaire measured the appeal of each storyline and the characters, and of children's

attitudes on risk taking behavior after hearing the script.

The script names and their overall ratings (5 is the highest possible score) were:

Something Ventured	3.63
Running	3.55
Chance Alley	3.31

Although all three scripts were high on appeal, understanding of the main risk-taking theme was low. The least successful script in communicating the theme was "Chance Alley." This script was also the most criticized by the adults who responded.

In general, both positive and negative features were found in all treatments. There was not a clear and obvious "best" script.

In all three treatments, the favorite character of the male respondents was Kevin, the Black leader of the POWERHOUSE gang. Females picked Bizzy, a female character in "Something Ventured" and "Chance Alley" as a favorite. Jennifer, a female leader, and Kevin were tied for the favorite of the girls who heard "Running." Clearly, preference for character falls along sex lines.

The storybord evaluation of the rough form Program Inserts (color slides and tapes) allowed for the selection of the most viable concepts in terms of both appeal and teaching value. The seven tested PPI's and the Standard Open are shown with their rating by target age respondents. (See Table 4, page 80.)

As with the script treatments, ratings were high, but gaps in understanding of the main message of the PPI's was shown.

An additional measure of the scripted drama character appeal was made at this time. After hearing descriptions of the seven main characters and seeing their pictures, children rated the characters on a five point Likert scale. The characters and their ratings were:

Jennifer	4.22
Kevin	4.02
Brenda	3.86
Al	3.63
Bizzy	3.49
Lolo	3.39
Bobby	3.29

Comments by teachers and researchers indicated that they felt that the mix of characters was realistic and appealing.

Additional adult reaction to the PPI's was solicited from the Curriculum Review Board. Although reactions were generally positive, criticism centered on the degree to which intended humor was felt to be successful, the need for a larger amount of useful information and possible misleading effects.

Drafts of print materials for children and adults were distributed to a nationwide sample, with instructions to look through the articles, do the activities of interest, and rate the articles on a five point scale. Results showed that the children's articles were rated more highly by the younger children in the sample. The most well liked articles by all children were a word search and a health facts quiz. In general, responses to the adult articles showed they contained a lack of new information and applicability to everyday life.

During the second Curriculum Review Board meeting in February, 1980, the subject of sex education arose as an issue in need of resolution. As a result, a questionnaire for "gatekeepers" was devised by APS to gather data about attitudes toward inclusion of sex education in POWERHOUSE, and about useful and acceptable topics. Most of the respondents did favor inclusion of sex information, but using a "straight facts" approach, rather than focusing on morality or values development.

A full-scale nationwide survey of 500 target age children was made in July of 1980 to measure reaction to a rough cut of the pilot program. Respondents were sampled from cooperating summer camps and youth groups. The main purposes in the data gathering were:

1. To determine the extent to which children understood the primary learnings of the drama and the program inserts.
2. To determine the extent to which children might change their attitude regarding risk taking behavior as a result of watching the pilot.
3. To determine appeal and salience of primary and secondary characters in the drama.
4. To measure the relative interest in a number of health topics planned for future shows.
5. To measure the overall appeal of the drama and program inserts.

Respondents rated the drama 4.29 out of a possible 5 points.

Post viewing recognition and identification by name of the major characters was high, and the majority of respondents felt that the POWERHOUSE gang likes being together "because they are friends." The

action-adventure format held a lot of appeal for the respondents and data on the characters show them to be well conceived and likeable.

However, the pilot did not provide a clear conception of how to become a POWERHOUSE, nor did it strongly transfer the idea of becoming a POWERHOUSE as a personal goal.

There were several primary learnings to be provided by the series pilot. Seeking adult assistance was viewed as positive and helpful by a large percentage of the respondents, but viewing the drama did not positively effect the number of responders who felt that taking chances should be done only after careful thought.

In short, the appeal of the drama and its characters was high, but there appeared to be some difficulty in translating the appeal of the story into positive guidelines for real-world activities.

As a group, the PPI's were not as enthusiastically received as the drama. Only "Powerfoods," with a score of 4.8 was more highly rated than the drama. Some age and sex variation was found in appeal of the inserts. Except for "Accident of the Week" and "Body Sounder" the central messages of the PPI's were not clearly identified by the target group.

In November of 1980, a market test of the pilot was conducted in a representative demographic market, Toledo, Ohio. The program was aired on WGTE-TV and outreach and promotion activities (i.e. placement of print and broadcast advertising, mailings and visits to community groups) were conducted.

Over one thousand households were telephoned to determine the effectiveness of the outreach activities and potential audience willingness to view the pilot. A school evaluation was performed to see if children who were asked to watch would do so, and also to see if the availability of print materials would facilitate willingness to watch and understanding of program purpose.

The most effective overall promotional medium was WGTE. One inference that can be drawn is that regular viewers of a channel are more likely to watch a program carried over the station. Advertisements directed toward parents are most effective in print, however only 14% of parents reached by any outreach element reported encouraging their children to watch POWERHOUSE. Tabulation of responses on why viewers watched POWERHOUSE indicated that the target age child can be motivated by adults to at least sample a program. However, both membership groups and parents were unreliable conduits of information to children. Direct advertising to children would appear to be the more effective approach.

In the school survey it was shown that the possession of print materials increased viewing levels. The school children generally found POWERHOUSE age appropriate (86%) and rated it better or equal to a list of twelve other shows to which it was compared.

In contrast to the field test results, a majority (67%) of the respondents understood the central message that everyone can be a Powerhouse.

The final evaluation procedure was a field test of a closed captioned version of POWERHOUSE for the hearing impaired, conducted in December, 1980.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. "Animation: It's An Award Winning Problem Solver," Advertising Age, July 23, 1979.

2. Axelson, Julein M. and Diana S. Del Campo, "Improving Teenagers' Nutrition Knowledge Through the Mass Media," Journal of Nutrition Education, Vol. 10, no. 1, January-March, 1978.

3. Banks, S., "The Effects of Critical Viewing Skills Curriculum on Advertising Forms and Strategies," Presented to the 1st National Conference on Children and Television: Implications for Education, November, 1979.

4. Barry, Thomas E. and Richard W. Hansen, "How Race Affects Children's TV Commercials," Journal of Advertising Research, Vol. 13, no. 5, October, 1973.

5. Beik, L.L., "Immediate Recall of TV Commercial Elements," Journal of Advertising Research, September, 1962.

6. Book, A.C., "Recall of Institutional TV Commercials," Journal of Advertising Research.

7. Britt, Steuart Henderson, "How Advertising Can Use Psychology's Rules of Learning," Printers' Ink, September, 1955.

8. Caldwell, K.S., "Animated Learning, How Does It Work?" Education and Urban Society, Vol. 10, pp 11-29, November, 1977.

9. Chen, Milton, Hylda Clarke, Barbara Myerson-Katz, and Anne Marie Santoro, 3-2-1 Contact: A TV Series on Science and Technology for Children 8-12, Test Show Evaluation Phase II, New York: Children's Television Workshop, July, 1979.

10. "Children and TV Commercials," Intellect, May-June, 1976.

11. "Children's TV Programming, Despite the Problems, It Continues Its Lively Way," Television/Radio Age, Vol. 27, no. 1, April, 1979.

12. Clinton, S., "TV As A Behavior Model," American Education, Vol. 11, no. 40, July, 1975.

13. Collins, W.A. and others, "Age-Related Aspects of Comprehension and Inference From A Televised Dramatic Narrative," Child Development, Vol. 49, pp 389-99, January, 1978.

14. Communication With Children Through Television, Office of Social Research, CBS Economics and Research.

15. Comstock, George, "The Evidence So Far," Journal of Communication, Vol. 25, no. 4, pp 25-34, Autumn, 1975.

16. Cox, D.F., "Clues for Advertising Strategists," Harvard Business Review, November-December, 1961.

17. Donohue, Thomas R., "Effect of Commercials on Black Children," Journal of Advertising Research, Vol. 15, no. 6, December, 1975.

18. Donohue, T.R., T.P. Meyer and L.L. Henke, "Black and White Children: Perceptions of TV Commercials," Journal of Marketing, October, 1978.

19. Earley, S., "Captioning at WGBH-TV: Boston's Public Television Station," American Annals of the Deaf, Vol. 123, pp 655-62, October, 1978.

20. Echo Hawk, Marlene, Where the Eagles Flies, film in preparation.

21. Egan, Lim, "Children's Viewing Patterns for Television News," Journalism Quarterly, Vol. 55, no. 2, Summer, 1978.

22. Elkind, David, A Sympathetic Understanding of the Child, Boston: Allyn and Bacon, 1971.

23. Elkind, David, Children and Adolescents, New York: Oxford University Press, 1970.

24. Elkind, David, The Child and Society, New York: Oxford University Press, 1979.

25. Feeley, J.T., "Interest Patterns and Media Preferences of Middle Grade Children," Elementary English, Vol. 51, pp 1006-8, October, 1974.

26. Feilitzen, Cecilia and Olga Linne, "Identifying with Television Characters," Journal of Communication, Vol. 25, no. 4, pp 51-55, Autumn, 1975.

27. Friedman, Hersey H. and Linda Friedman, "Endorser Effectiveness by Product Type," Journal of Advertising Research, Vol. 19, no. 5, October, 1979.

28. Greenberg, Allan and Charles Suttoni, "Television Commercial Wearout," Journal of Advertising Research, Vol. 13, no. 5, October, 1973.

29. Grosset, P., "On Enjoying Good Health: Television Films for the Over-Eights," London Times Education Supplement, Vol. 3112, pp 56-7, January 17, 1975.

30. Haller, T.B., "Predicting Recall of TV Commercials," Journal of Advertising Research, Vol. 12, no. 5, October, 1972.

31. Helitzer, Melvin and Carl Heyel, The Youth Market, Its Dimensions, Influence and Opportunities for You, New York: Media Books, 1970.

32. Hendon, Donald Wayne, "How Mechanical Factors Affect Ad Perception," Journal of Advertising Research, Vol. 13, no. 4, August, 1973.

33. Hendon, D.W., A.F. McGann and B.L. Hendon, "Children's Age, Intelligence and Sex As Variables Mediating Reactions to TV Commercials: Repetition and Content Complexity Implications for Advertisers," Journal of Advertising, Vol. 7, no. 3, 1978.

34. "Host Selling vs Premium TV Commercials: An Experimental Evaluation of Their Influence on Children," Journal of Marketing Research, Vol. 16, August, 1979.

35. Hsia, H.J., "Audience Recall As Tolerance Toward Television Commercial Breaks," Journalism Quarterly, Vol. 5, no. 4, Spring, 1974.

36. "Humor in Advertising," Television Age, July, 1967.

37. "Humor in Ads: When Should It Be Used?" Printers' Ink.

38. "Is Advertising Believability Really Important?" Journal of Marketing, October, 1963.

39. "Is More Than Three A Crowd?" Television Age, October, 1967.

40. Jenkins, Suzanne, Mary Stumo and Jane Voichick, "Evaluation of the Nutrition Film Series 'Mulligan Stew'," Journal of Nutrition Education, Vol. 7, no. 1, January-March, 1975.

41. Joyce, T., "Measuring Consumer Response to Ads," Advertising Age, July, 1967.

42. Kelly, J.P. and P.J. Solomon, "Humor In Television Advertising," Journal of Advertising, Vol. 4, no. 3, 1975.

43. Kover, A.J. and S. Lieberman, "Selecting Commercial Spokesmen," Journal of Advertising Research, September, 1961.

44. Krugman, Herbert E., "Why Three Exposures May Be Enough," Journal of Advertising Research, Vol. 12, no. 6, December, 1972.

45. Leibman, Roberta, Centers for the Handicapped, Silver Spring, MD Interview, December 22, 1979.

46. Liefer, A. Door, N.J. Gordon and S. Browne Graves, "Children's Television More Than Mere Entertainment," Harvard Education Review, Vol. 44, no. 2, March, 1974.

47. Long, Mary Chemka, "Television: Help or Hindrance to Health Education," Health Education, May-June, 1978.

48. MacLachlan, J. and P. LaBarbera, "Time-Compressed TV Commercials," Journal of Advertising Research, Vol. 18, no. 4, April, 1978.

49. Martilla, J.A. and D.I. Thompson, "The Perceived Effects of Piggyback Television Commercials," Journal of Marketing Research, Vol. 3, 1966.

50. McMahan, H.W., "Cartoon Commercials Can Solve Special Problems In Today's Changed Scene," Advertising Age, October 17, 1968.

51. Meyer, T.P., T.R. Donohue, L.L. Henke, "How Black Children See TV Commercials," Journal of Advertising Research, Vol. 18, no. 5, October, 1978.

52. Melke, Keith, Milton Chen, Hylda Clarke and Barbara Myerson-Katz, Survey of Television Viewing Interests Among Eight-to-Twelve-Year-Olds, New York: Children's Television Workshop, October, 1978.

53. Morrison, B.J. and M.J. Dainoff, "Advertisement Complexity and Looking Time," Journal of Marketing Research, Vol. 9, 1972.

54. Murphy, J.H., C.M. Cunningham and G.B. Wilcox, "The Impact of Program Environment on Recall of Humorous Television Commercials," Journal of Advertising, Spring, 1979.

55. Palmer, Edward L., Children's Advertising Rulemaking Comment, testimony before Federal Trade Commission, November 21, 1978.

56. "Race, Culture Affect Humor Commercials," Market News, August 24, 1979.

57. Ray, M.L. and P. Webb, "Experimental Research on the Effects of TV Clutter: Dealing With A Difficult Media Environment," Marketing Science, April, 1976.

58. Research on the Effects of Television Advertising on Children: A Review of the Literature and Recommendations for Future Research, National Science Foundation by Rann Corp.

59. Rossitch, John R., "Does TV Advertising Affect Children?" Journal of Advertising Research, Vol. 19, no. 1, 1979.

60. Rust, Langbourne and Thomas A. Watkins, "Children's Commercials: Creative Development," Journal of Advertising Research, Vol. 15, no. 5, October, 1975.

61. Schile, G.W., "How to Reach the Young Consumer," Harvard Business Review, March-April, 1974.

62. Schlater, Robert, "Effect of Speed of Presentation on Recall of Television Messages," Journal of Broadcasting, Vol. 14, no. 2, Spring, 1970.

63. Sheikh, V. Kanti Prasad and T.R. Rao, "Children's TV Commercials: A Review of Research," Journal of Communication, Autumn, 1974.

64. Roberts, D.F., "Communication and Children: A Developmental Approach," in Handbook of Communication, Ithiel de Sola Pool, W. Schramm, eds.

65. "Stations Continue Strong in Local Kid Shows Despite Typically Low Ratings and Unprofitablity," Television/Radio Age, August, 1979.

66. Sternthal, B. and C.S. Craig, "Humor in Advertising," Journal of Marketing, Vol. 37, October, 1973.

67. Steward, J., "Is Ten Seconds too Little?" Presentation at the ANA Television Workshop, New York, March, 1978.

68. Streicher, L.H. and N.L. Bonney, "Children Talk About Television," Journal of Communication, Summer, 1974.

69. "Subtitles for TV and Films," American Education, Vol. 13, pp 18-22, March, 1977.

70. "Teaching An Old Gnu Tricks," Schwerin Research Corporation Bulletin, Vol. 5, no. 10, October, 1957.

71. "The Funny Thing About Some Commercials," Broadcasting, June 2, 1977.

72. Theorux, J.M., "The Quiz Show: A New Tool for Education," Educational Technology, July, 1975.

73. "TV Animation Isn't Just Cartoons, (How to be Visible in Clutter)," Advertising Age, January 31, 1972.

74. Wackman, Daniel B. and Ellen Wartella, "A Review of Cognitive Developmental Theory and Research and the Implication for Research on Children's Responses to Television," Communication Research, Vol. 4, no. 2, pp 203-224, April, 1977.

75. Wang, M. and J.T. Dwyer, "Reaching Chinese-American Children With Nutrition Education," Journal of Nutrition Education, Vol. 7, no. 4, October-December, 1975.

76. Ward, Scott, "Children's Reactions to Commercials," Journal of Advertising Research, Vol. 12, no. 2, April, 1972.

77. Ward, Scott, Daniel B. Wackman and Ellen Wartella, How Children Learn to Buy, Beverly Hills: Sage Publications, 1977.

78. Weatley, J.J., "Influence of Commercial's Length and Position," Journal of Marketing Research, Vol. 5, May, 1968.

79. Webb, P.H. and M.L. Ray, "Effects of TV Clutter," Journal of Advertising Research, Vol. 19, no. 3, June, 1979.

80. "What Are Hidden Meanings of Color?" Printers' Ink, November, 1954.

81. "What Are the Pros and Cons of Humor Commercials?" Sponsor, April, 1957.

82. "What Is the Best Length for A TV Commercial?" Media Scope, October, 1964.

83. "Who Remembers Commercials Best?" BRC Newsletter, April, 1978.

84. Woody, R.H., "Educational Television Programming and School Health," Journal of School Health, Vol. 44, pp 246-9, May, 1974.

85. Zuckerman, P. and others, "Children's Viewing of Television and Recognition Memory of Commercials," Child Development, Vol. 49, pp 96-104, March, 1978.